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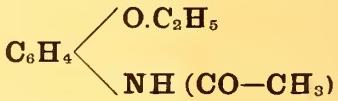
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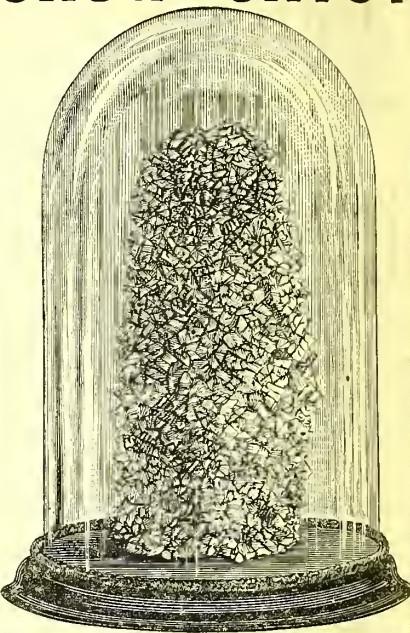
South Australia.—Pharmaceutical Society: Official Report.

Victoria.—Pharmaceutical Society of Australasia: Council Meeting, Annual Report and Balance Sheet.

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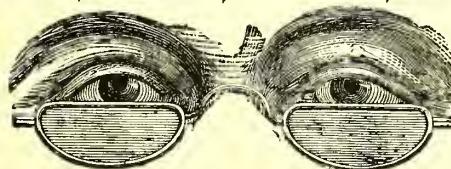
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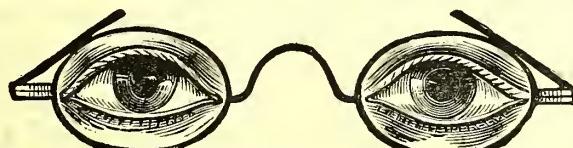
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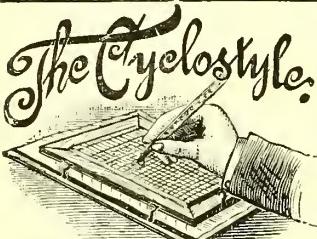
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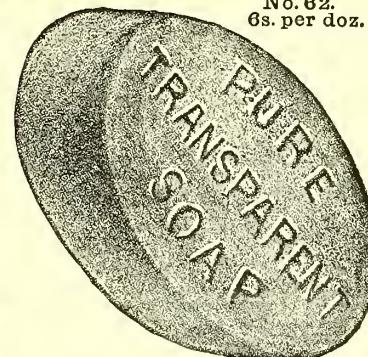
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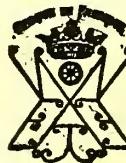
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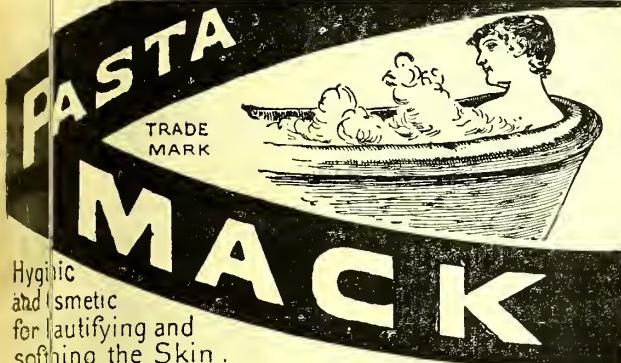
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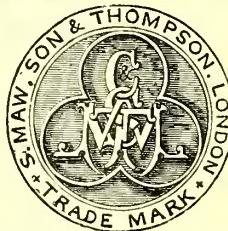
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Please Note.—B. & F. are the only firm manufacturing Syphons in England that do not supply them filled, and so compete with their customers' trade.

BARNETT & FOSTER,
MINERAL WATER ENGINEERS,

Manufacturing Chemists, and General Providers for the Aerated Water Wine, Beer, and Cyder Trades.

"Niagara Works," 26th Eagle Wharf Road, London, N.
Send for Price List of Soda-water
Machinery and Accessories.

EIGHT PRIZE MEDALS AWARDED.

GOODALL'S HOUSEHOLD SPECIALTIES.

Yorkshire Relish

THE MOST DELICIOUS SAUCE IN THE WORLD.
To Chops and Steaks, Fish, &c., it is incomparable. 1 Bottles, 6d., 1s., and 2s. each.

CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & CO. No other is genuine.

Goodall's Baking Powder

THE BEST IN THE WORLD.
Makes delicious Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1d. Packets; 1s., 2s., and 5s. Tins.

Goodall's Quinine Wine

The best, cheapest, and most agreeable tonic yet introduced. Bottles, 6d., 1s., and 2s. each.

Goodall's Custard Powder

For making delicious Custards without Eggs, in less time and at half the price. Sold in Boxes, 2d., 6d., and 1s. each.

Goodall's Blanc Manger Powder

Is acknowledged by all to be the most convenient and economical preparation ever introduced, as, by its use, a most Rich and delicious Blanc manger may be produced in a few minutes at a trifling cost, and may be had of various flavours, i.e., Raspberry, Strawberry, Lett, Almond, and Vanilla. Sold in Packets, 6d. and 1s. each.

Goodall's Egg Powder

Acknowledged to be the only real substitute for eggs in action on Cakes, Puddings, &c., &c., resembles that of particular, enriching them in colour and flavour, rendering them wholesome and nutritious. One sixpenny tin will go as eggs. In 1d. Packets; 6d., 1s., 2s. Tins.

SOLE MANUFACTURERS—

GOODALL, BACKHOUSE & CO.
WHITE HORSE STREET, LEEDS.

A Monthly Price List of Druggists' Sundries
Patent Medicines, &c., can be had Post Free on application.

TO AERATED WATER MANUFACTURERS.

HAY'S SOLUBLE + ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET.

HONOURABLE MENTION: INTERNATIONAL FOOD EXHIBITION, AGRICULTURAL HALL, LONDON, OCTOBER, 1880. GOLD MEDAL: SOCIETY OF ARTS, PARIS, 1883.

TRADE MARK

HAY'S

HOP LE ESSENCE,

"Supplies an excellent stomachic, appetising and agreeable summer drink."

Brewers' Journal.

"For its Essence a brilliant future may be anticipated. It possesses characteristics very seldom to be met with."

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HAY'S HOP ALE.

"This is an excellent Non-Alcoholic beverage."

The Lancet.

"Evokes a delicious aroma of Hops."

Medical Press.



REGISTERED.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.

A Fine Essence of the Finest Ginger, perfectly free from Capsicum. Highly adapted for the manufacture of Transparent Aerated Waters, and all Dietetic, Medicinal, and Pharmaceutical purposes. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER. FOR FIRST QUALITY GINGER ALE.

Skilfully prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of grace and pungency. Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s. Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. bottles.

HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts Pungency, Colouring, great Brilliance, and an unusually Fine Ginger Flavour and Aroma, and makes a thoroughly good article. Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s. Quantity required, three fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bouquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour and body that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d. Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This Essence will be found most valuable to the general trade.

HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the finest flavours, and imparts with the Ginger a most exquisite aroma, making a most delicious and refreshing approximation to Champagne. Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d. Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour of the Lemon."—*The Chemists' Journal.*

HAY'S LEMON FLAVOUR. (Perfectly Soluble.)

Is prepared from the Finest Messina Lemons, and imparts to Lemonade all the Fine Aroma and Flavour of the fresh fruit. An Exceptionally Fine Essence. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d. Quantity required, one and a half fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S HOP ALE ESSENCE.

This essence is made from the Choicest Hops grown, and is unrivalled for its peculiarly fine Hop flavour and aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer. Trade price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. Quantity required, two fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

For Orange, Vanilla, and all other Essences send for Price List.

[2]

W HAY, Manufacturing Chemist, Beverley Rd., ENGLAND. HULL.

The difference between preparations made from HAY'S ESSENCES and those made from the numerous SPURIOUS IMITATIONS of them bearing the name of SOLUBLE ESSENCES is most marked, and no manufacturer using the latter can compete with one using HAY'S PREPARATIONS, as is universally known. Indentor to prevent disappointment, should specify that the Goods are to be of HAY'S MANUFACTURE.

"THE BEST NATURAL APERIENT."

Persistent attempts are made by interested parties to deceive the public by offering Natural Mineral Aperient Water with marks, names, and designations very similar to those which are used by the APOLLINARIS COMPANY, LIMITED, for the NATURAL MINERAL APERIENT WATERS imported by them.

Under these circumstances the APOLLINARIS COMPANY, LIMITED, feel compelled to caution the public that the HUNGARIAN BITTER WATER sold by the COMPANY always bears the name of the APOLLINARIS COMPANY, LIMITED, on the Label.

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KEF. MILK DRINK.

The most easily assimilated Food in Wasting Diseases.

PREPARED AND DELIVERED DAILY BY THE

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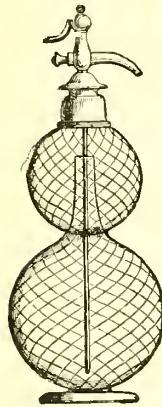
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TRADE MARK: HEBE

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FEVRE'S SELTZOGENES.

	2 PINT.	3 PINT.	5 PINT.	8 P.T.
Caned, each	7/	8/	12/5	209
Wired, each	2 PINT. 6/6	3 PINT. 7/9	5 PINT. 11/9	8 P.T. 18/1

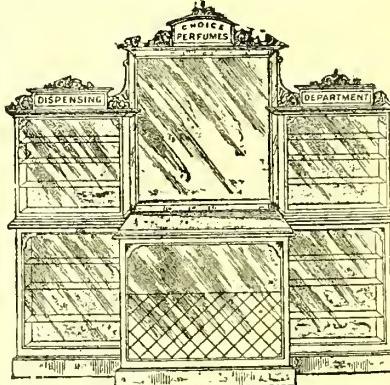
£2 worth or more, 5 per cent. discount.

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"THE CHEMIST" DISPENSING COUNTER.6 feet long by 2 feet wide .. £24
If the Dispensing Screen only, £12

This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate. The counter has a solid mahogany top, and plate-glass case front. The centre part fitted to take sponge. A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work. The back of screen fitted with small shelves and a glass poison cupboard. The inside of counter fitted with strong counter drawers, label and cork drawer, open shelves, &c.



NOTICE TO THE TRADE.
In consequence of inferior Second-hand Goods being sold for make, we have found it necessary to protect our reputation for best work with a Trade Mark, as above, all goods are so stamped we cannot be answerable.

BOWLING & GOVIER
Manufacturers of High-class Shop Fittings,
GUN ST., BRUSHFIELD ST.
BISHOPSGATE, E.C.

**E. NATALI,
SHOW CASE MAKER,
SHOP AND OFFICE FITTER,
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Works—HENSON STREET.**

SECOND-HAND COUNTERS, FITTINGS, GLASS CASES, &c., always in stock.

EMPERANCE BEVERAGES.*A Sixpenny Bottle of***DAMS'S EXTRACT OF HERBS**

We make 8 gallons of sparkling, wholesome, and refreshing
RIME HERB OR BOTANIC BEER,

*Unequalled in strength and richness of flavour by any preparation
made from fresh herbs.*

The Extract is very carefully manufactured, on the most improved
scientific principles, from the herbs and plants gathered and dried at the
proper season, when their virtues are in full vigour, thus retaining their
invigorating and health-giving properties,

makes an excellent beverage, giving natural flavour and colour, and
a sparkling foam like bottled ale.

Bottles, 6d. to make 8 gals.; 1s. to make 18 gals.; and
2s. 6d. to make 50 gals.

DAMS'S GINGER ALE ESSENCE

makes a sparkling, refreshing, and invigorating beverage for
summer and winter.

DAMS'S SPARKLING FOAM PRODUCER.

One tablespoonful added to 2 gallons of the Herb Beer or Ginger Ale,
just before bottling, gives a creamy foam like bottled ale.

Wholesale Agents,

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Specially favourable terms to large Buyers from the
PROPRIETOR,

BADAMS, Mansfield, Notts.

All that can reasonably or even by
the most exacting be expected from
a Sparkling Table Water—
absolutely free from
Botanic Matter.”—
A Hill Hassall, M.D.

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TOMLINSON & COMP'S

— NEW OIL —

BUTTER COLOUR

IN BOTTLE OR BULK.

Cheaper and Purer than Foreign Brands.

Our Colouring having been so generally approved of by Chemists who have given it a trial, and having given every satisfaction to Butter Makers, we have been compelled to put down a **NEW PLANT** for the manufacture of same, and are now in a position to supply **ANY QUANTITY AT THE SHORTEST NOTICE.**

DOES NOT COLOUR THE BUTTER MILK. WILL NOT TURN RACID.

IN BOTTLES, 6d., 1/-, 2/6, and 4/6, with or own or Chemist's name on.

IN CASKS, from 1 to 40 Gallons, at lowest price.

FULL PARTICULARS, PRICES, AND SAMPLES ON APPLICATION.

SOLE MANUFACTURERS—

TOMLINSON & HAYWARD,

AGRICULTURAL CHEMISTS,

Estab. 45 Years.] LINCOLN. [Estab. 45 Years.

PROPRIETORS OF TOMLINSON & CO.'S BUTTER POWDER.

Telephone Number, 1852

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This arrangement is necessary in order to meet the requirements of the Post Office.**

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Maw, Son and Thompson
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Zimmermann

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French Hygienic Co. (Coca)

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COCAINE HYDRO.

Howards and Sons

COCA WINE

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Evans, Sons and Co.

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ettes and Tobacco)

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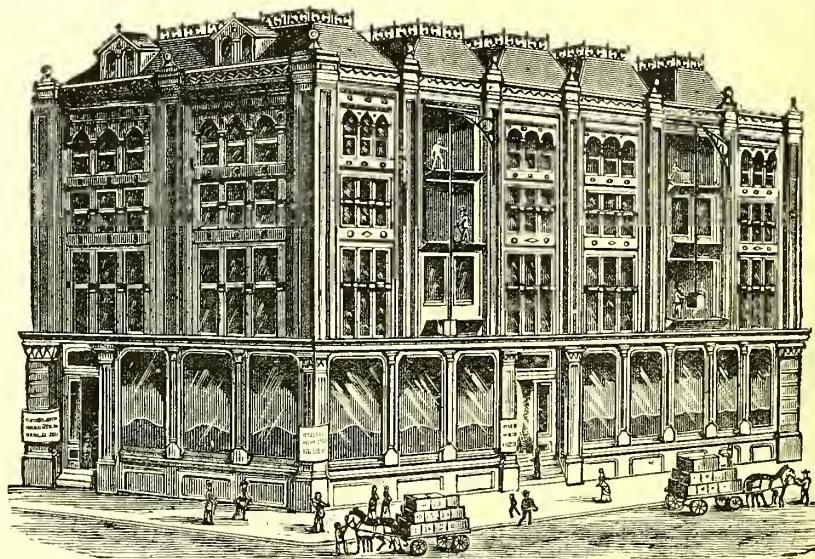
Vases supplied with Pills only.

HESELTINE'S

THE PREMIER TEA OF INDIA AND
CEYLON, IS THEIR SPECIAL IMPORTATION
AND THE PERFECTION OF TEA.

REGISTERED

"TAPRABUNDA" TRADE MARK.



OFFICES AND DUTY PAID WAREHOUSES.

For Retail at 1s. 8d., 2s., and 2s. 6d.

In Lead Packets, $\frac{1}{4}$ lb., $\frac{1}{2}$ lb., and 1 lb.

Terms of Agency, and Samples of the Tea, on application.

WM. HESELTINE & SON,

56 Wilson Street, and 1 & 3 Earl Street, Finsbury,
LONDON, E.C.

AGENTS WANTED WHERE NOT ALREADY REPRESENTED.

READ THIS!!! THERE'S MONEY IN IT.

The following unsolicited Testimonials about the Spring Blossom Ceylon Tea, which may be seen at our office, speak for themselves.

No. 1 One writes on the 16th April, 1888 :—“My customers say that it's **BEST TEA I HAVE HAD.**”

No. 2 On the 10th April, 1888 :—“Our customers **LIKE IT AND RECOMMEND IT.**”

No. 3 Another writes, on the 3rd April, 1888 :—“We have got your Tea sted here, and it **GIVES SATISFACTION TO EVERYONE WHO TRIES IT.**”

No. 4 Another, on the 31st March, 1888 :—“I find fresh customers ev week, and it **GIVES GREAT SATISFACTION.**”

No. 5 On the 21st March, 1888 :—“The Tea is **LIKED WELL,** getting fresh customers every day.”

No. 6 On the 19th February, 1888, a customer writes, ordering Spring Bloom Ceylon Tea :—“I shall make it known as much as possible; they'll say **THEY NEVER TASTED BETTER TEA.**”

No. 7 Another, on the 25th February, 1888, says :—“I find the Spring Bloom rapidly gaining favour, and **GIVES UNIVERSAL SATISFACTION.**”

No. 8.—Another, on the 27th February, 1888, says :—“**GREAT ENQUIRIES FOR THIS TEA.**”

No. 9.—A Customer, ordering six cases of Spring Blossom Ceylon Tea on the 10th February, 1888, says :—“I may say that the customers who have tried it speak in great praise of it, and **WILL HAVE NO OTHER.**”

No. 10.—Another writes, on the 7th February, 1888, ordering three cases of Spring Blossom :—“The sale of your Spring Blossom Tea is increasing, and appears to give much satisfaction.”

No. 11.—Another writes, on January 9th, 1888, of the Spring Blossom :—“I may for your information tell you that your Ceylon Tea **GIVES GENERAL SATISFACTION.**”

No. 12.—Another writes, February 13th, 1888 :—“The Spring Blossom Tea is **TAKING WELL** with my customers.”

No. 13.—Another writes, November 21st, 1887 :—“I may add that the sale of your Tea (the Spring Blossom) is **GRADUALLY INCREASING, AND IT IS MUCH APPROVED OF.**”

AGENTS WANTED WHERE NOT REPRESENTED.

Packed Circular Air-tight Canisters to sell Retail at 2/-, 2/6 & 3/-lb. Tasting Samples and Terms post free, or set of 3 1/4-lb. Samples post free for 2/- in stamps

CAVE, JOHNSON & CO., WHOLESALE TEA & COFFEE DEALERS, 8 LIME STREET, LONDON, E.C.

BLENDED WAREHOUSES—1 FENCHURCH AVENUE, E.C.

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**J. & F. J. TAYLOR'S
AERATED WATERS,
Newport Pagnel.
ESTABLISHED 1885.**

SODA POTASH, Seltzer, AERATED (without Alkali), and LITHIA WATERS, LEMONADE AND GINGER ALE.

This firm is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.C.S.

DE MIEL'S PERFECT HEALTH BISCUITS.

CHEMICAL LABORATORY.

54 Holborn Viaduct, E.C., London, Jan. 7, 1887.

Messrs. INTERNATIONAL PATENTS ASSOCIATION.

Dear Sirs.—Having submitted the sample of DE MIEL'S BISCUITS lately received in you to a careful chemical analysis, we are enabled to report upon them as follows :

These Biscuits have been found to contain considerable proportions of nitrogenous matter, a part of carbo-hydrates; they are also especially rich in salts, which include a large amount of combined phosphoric acid. The flesh-producing, heat-giving and bone-forming constituents of food are thus all represented in these Biscuits. A satisfactory feature is absence of excess of moisture, the baking having evidently been conducted with care.

The Biscuits possessed an agreeable flavour; and they can be pronounced to be well made and good quality.—We remain, faithfully yours,

ARTHUR HILL HASSELL, M.D., Lond.,

Author of “Food: Its Adulterations and the Methods for their Detection.”

EDWARD GODWIN CLAYTON, F.I.C., F.C.S.

A Lib. Discount to the Trade. Circulars and Particulars on application.

The INTERNATIONAL PATENTS ASSOCIATION,
15 NICHOLAS LANE, LONDON, E.C.,
MANUFACTURING CHEMISTS AND SUNDRIESMEN.

**WHAT YOU CAN
WHAT YOU SHOULD
SELL
CASSELL'S CEYLON TEAS**

THE LANCET, September 25, 1886, says of Cassell's Ceylon Teas :—

“The Tea Plantations of Ceylon have been a great success, and have added in an important degree to the material resources of the Island. The sample now before us is very satisfactory. There is no facing or other mineral matter. The leaves are small and clean, and give a strong decoction of delicate flavour. Such Tea may well replace the product of China.”

THE GROCER, January 2, 1886, says :—

“The Ceylon Teas Messrs. Cassell have named and registered as ‘The Tea of the Future,’ a title which will most probably prove true, if the consumption of this really fine article increases in the same ratio that it has done during the past two or three years.”

**“FRAGRANT TEA,”
“PURE AS IMPORTED,”**

In Air-tight Lead Package, 1 lb., and 1 pound.

Charged 1/8 sells 2/-, 2/- sells 2/6, 2/6 sells 3/-.

Agents appointed in City, Town, and Village.

Write for Sample Packages, sent post-free.

Handbills, Showcards, &c., sent with each order.

THIS TEA COMMANDS A SALE.

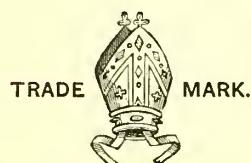
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COMFORT & PROLONG YOUR EXISTENCE
BY DRINKING

**MITRE
TEA.**



	s. d.
Mitre "Broken Leaf"	1 4
Mitre "Broken Am.	
Pekoe"	1 8
Mitre "Thrift" (whole leaf)	1 8
Mitre "Kee-Mun" ...	2 0
Mitre "Amgoorie" ...	2 6



**MITRE
TEA.**



	s. d.
Mitre "Broken Lea"	1 4
Mitre "Broken A.	
Pekoe"	1 8
Mitre "Thrift" (wh le)	1 8
Mitre "Kee-Mun".	2 0
Mitre "Amgoorie".	2 6

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VALUABLE AGENCY.

Framed Show Cards, Enamelled Iron Tablets, Posters, Window Transfer, and Handbills with gent's Name on supplied free. Newspaper and Railway Station Advertisements to suit the requirements of Agents. Applications for Agencies where unrepresented will receive prompt attention. Price Current and Pamphlet, with Terms, post free.

KEARLEY & TONGE, MITRE SQUARE,
ALDGATE, **LONDON, E.C.**

HOLBROOK'S WORCESTERSHIRE SAUCE

HOLBROOK'S LONDON RELISH

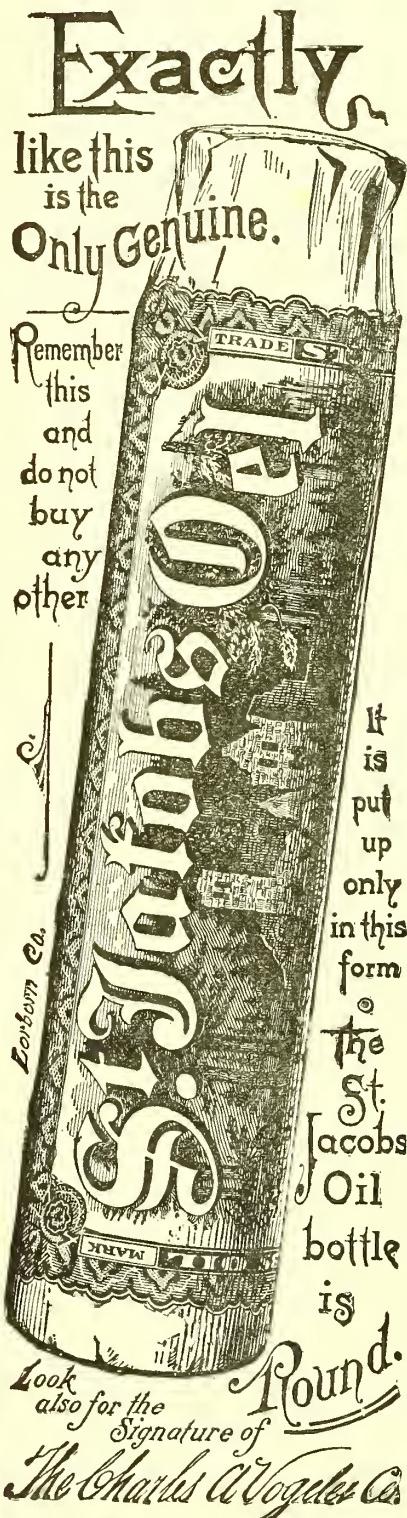
HOLBROOK'S PURE PICKLES

THE BIRMINGHAM VINEGAR BREWERY COMPANY,
Limited, have for many years been the Sole Manufacturers
of these articles.

The attention of the Company having been drawn to certain advertisements and other documents which have been circulated in the Trade, that the Public are invited to purchase these articles from persons other than the BIRMINGHAM VINEGAR BREWERY COMPANY, Limited, the BIRMINGHAM VINEGAR BREWERY COMPANY, Limited, have already commenced legal proceedings to protect the exclusive rights which they claim to these articles. The Public and the Trade are warned that any of the above articles purchased under this Brand from any Manufacturers except the BIRMINGHAM VINEGAR BREWERY COMPANY, Limited, will not only be spurious, but may expose the person retailing the same to the risk of being made Defendant to legal proceedings.

"ST. JACOBS OIL" v. "ST. JOSEPHS OIL."

AN IMPORTANT DECISION.



On the 3rd of February, 1888, in the High Court of Justice, Chancery Division, London, a perpetual injunction with costs was granted against the manufacturers of a so-called St. Josephs Oil, ordering that the Defendant, his servants and agents be perpetually restrained from infringing the Plaintiffs' Trade Mark, "St. JACOB OIL," and from selling, or offering for sale, any medical compound under a name or title of St. Josephs Oil, using said title or any other title resembling the same, or only colourably differing therefrom, and from passing off, or attempting to pass off, and from enabling others to pass off any medical compound not of the Plaintiffs' manufacture, as or for the goods of the Plaintiff Company, the CHARLES A. VOGELER COMPANY, of 45 Farringdon Road, London, by the use of the words ST. JOSEPH OIL, or in any other way.

This decision for ever prohibits the use of the term "ST. JOSEPHS OIL," or any other similar terms, or any other title or terms similar, to those used by the Charles A. Vogeler Company in connection with "ST. JACOBS OIL."

In publishing this decision in the columns of "THE CHEMIST AND DRUGGIST," we are aware that same will reach all Chemists and Dealers throughout the United Kingdom, and we desire to improve this opportunity to thank the trade, the trade journals, and the press for the generous support and encouragement which they have invariably given us in our effort to protect our Trade Mark rights, not only in the case above mentioned, but in various other cases of a similar nature, in all of which we have been successful in the end, not having lost a single case which we have prosecuted. We have much pleasure in now stating that we have not a single case of attempting to infringe our Trade Mark in the Courts, and we feel that we have to largely thank the trade and the press that such is the fact. We shall continue to uphold and extend the reputation and popularity of ST. JACOBS OIL by original, extensive, and dignified advertising.

THE CHARLES A. VOGELER CO.
45 FARRINGDON ROAD, LONDON.
Telephone No. 6714. Cable and Telegraphic Address, "RUMATIX LONDON."

Axioms.

Brevi Manu.

The activity of a pepsin is the criterion of its value. Fairchild's Pepsin in Scales is 20 times the standard strength.

* * * * *

A Malt Extract made only from the very best grain for the purpose—*i.e.* barley—is better than a Malt extract in the making of which inferior grains have been substituted for whole or part of the barley (Kepler Malt Extract is made from barley only.)

* * * * *

Codliver oil in solution is the most *palatable* form of the oil.

* * * * *

Codliver oil with another food, such as malt extract is the most *digestible* form of the oil.

* * * * *

If a preparation an oil is molecularly incorporate with another liquid, the oil may be said to be in solution. This is fact.

* * * * *

As the Kepler Solution of cod liver oil differs from oils in every way, and resembles fully solutions of all other oils, *it must be a Solution*.

* * * * *

The superior palatability and digestibility of an oil are criteria of its superiority, *e.g.*, the Kepler Solution.

* * * * *

A food which an infant cannot digest is contraindicated, and before being given should be brought by pregestation within the scope of the infantile digesti.

* * * * *

As the Zymine Peptonising Powders (Fairchild) prevent the usual curdling of cow's milk in the stomach and render that fluid pleasant and assimilable, they fulfil the most urgent requirements of infant and invalid feeding.

* * * * *

In making beef-tea the nutritious albumen coagulated by heat should be dissolved out of the meat with Zymine, and not strained out and thrown away as is usually done.

* * * * *

Beef fat from which the albumen has been precipitated with heat and strained out has, of course, lost its chief nutritive value.

* * * * *

Zymine supplied to the Trade in $\frac{1}{2}$ -oz. and 1-oz. bottles, at 2s. and 3s. per doz. Retail prices, 2s. and 6s. Zymine Peptonising Powders in boxes containing 1 doz. tubes, at 18s. per doz. to the Trade. Retail price 2s. Supplied on favourable terms by all Wholesale Houses throughout the World.

Above prices subject to usual discount.

BURoughs, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

In extreme cases where decided and rapid medication is requisite, "the subcutaneous tissue affords the most rapid route to the central organs."

* * * * *

Moreover, by subcutaneous injection the amount of the drug in the circulation is more accurately known than it otherwise could be—a vital point.

* * * * *

The "Burroughs' Hypodermic Emergency Case" (or Pocket Case) is replete with Tabloids of soluble compressed alkaloids, syringe, mortar and pestle, etc. Everything ready for use at a moment's notice!

* * * * *

The most natural ointment for the skin and other keratinous tissues is one made with a fat obtained from keratinous tissue. Such a fat is Lanoline.

* * * * *

As a fat which turns rancid, or contains fatty acids, irritates the skin, an unguent basis free from these drawbacks should always be prescribed. Such a basis also is Lanoline.

* * * * *

As pills roll so freely about the mouth, they are the most difficult form of drug to swallow. (The tabloids of compressed drugs do not roll about the mouth, and are very easy to swallow.)

* * * * *

As the tendency of pills is to become harder and harder with time, the objections to this obsolete method of medication are noteworthy.

* * * * *

As the tabloids contain the pure drug itself, free from excipient or other admixture, they are an advance of the highest possible advantage in therapeutics.

* * * * *

As nutrient enemata soon excite rectal intolerance, and as the Zymised Suppositories do not, but have sustained life for 37 days, the latter are preferable in those cases where food should not or cannot be given by the mouth. (The Zymised Suppositories are now perfectly suited to infants, and contain the same amount of nutriment as before.)

* * * * *

Zymine, being an active dry form of the pancreatic digestive ferments, is an infinitely more stable product than it would be if in solution.

Hypodermic Tabloids of the principal drugs and alkaloids supplied to the Trade in tubes, each containing 12 Tabloids, at 12s. per doz.

The Kepler Solution and Kepler Malt Extract supplied to the Trade in Bottles containing $\frac{3}{4}$ lb. and 1 $\frac{1}{2}$ lb. at 22s. and 38s. per doz. Retail prices 2s. 6d. and 4s. Supplied on favourable terms by all Wholesale Houses throughout the World.

Above prices subject to usual discount.

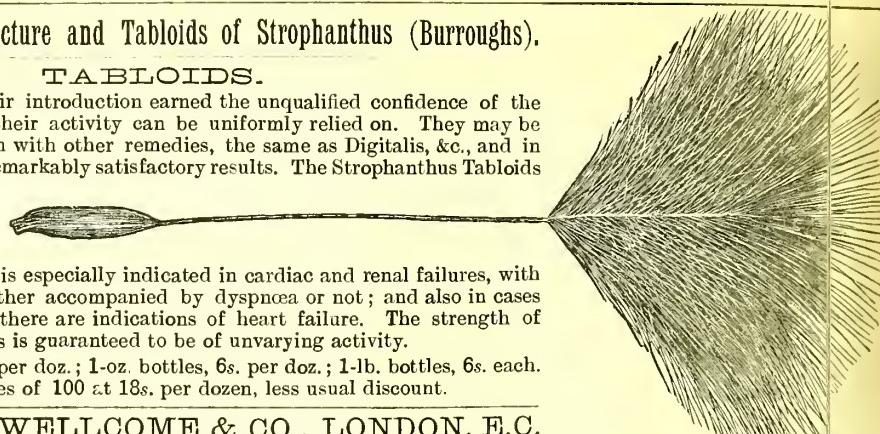
Reduced Prices of Tincture and Tabloids of Strophanthus (Burroughs).

TABLOIDS.

These have since their introduction earned the unqualified confidence of the medical profession, for their activity can be uniformly relied on. They may be prescribed in conjunction with other remedies, the same as Digitalis, &c., and in appropriate cases afford remarkably satisfactory results. The Strophanthus Tabloids afford a most convenient and safe method of administration as each contains 2 minimis of the Tincture.

Strophanthus is especially indicated in cardiac and renal failures, with oedema or anasarca, whether accompanied by dyspnoea or not; and also in cases like typhoid fever when there are indications of heart failure. The strength of our Tincture and Tabloids is guaranteed to be of unvarying activity.

Prices: $\frac{1}{2}$ -oz. bottles, 4s per doz.; 1-oz. bottles, 6s. per doz.; 1-lb. bottles, 6s. each. Tabloids, bottles of 100 at 18s. per dozen, less usual discount.



BURROUGHS, WELLWOME & CO., LONDON, E.C.

See Recommendatory Notice of Medical Press and Opinions of the leading Dermatologists.

WRIGHT'S

Detergents, acting for four hours, arrested future growth."

Of all Druggists, Wholesale and Retail, throughout Great Britain, Ireland, and Colonies.

LIQUOR

From the *Lance*, Dec. 22, 1886:—"In our hands it has been a most effective agent in skin diseases, especially of the chronic eczematous class, and one class of psoriasis which had resisted all other kinds of treatment speedily got well under the application of the *Liquor Carbonis Detergens*. We esteem it a very valuable addition to our list of skin remedies."

1871:—"We have tested it, and can affirm its value as a detergent agent. We consider the Liquor is an article of great utility."

Kept in stock and sold by all Druggists (Wholesale and Retail) throughout the United Kingdom and Colonies. PROPRIETORS—

W. V. WRIGHT & CO., 48 Southwark Street, LONDON.

CARBONIS

From the *Medical Times and Gazette* Jan. 19, 1867:—"We have never once called attention to the value this remedy in chronic eczema."

From the *British Medical Journal*, Sept. 22,

DETERGENS.



SWIFT'S SPECIFIC

Is Nature's own remedy, made from roots gathered from the forests of Georgia. The method by which it is made was obtained by a half-breed from the Creek Indians who inhabited a certain portion of Georgia, which was communicated to one of the early settlers and thus the formula has been handed down to the present day. The ent represents the method of manufacture 20 years ago, by Mr. C. T. Swift, one of the present proprietors. The demand has been gradually increasing until an extensive laboratory is now necessary to supply the trade.

THIS GREAT

VEGETABLE BLOOD PURIFIER

Cures Cancer, Catarrh, Scrofula, Eczema, Ulcers, Rheumatism, Bod Taint, Hereditary or otherwise, without the use of Mercury or Potash.

Books on "Contagious Blood Poison" and on "Blood and Skin Diseases" free.

THE SWIFT SPECIFIC COMPANY,
35 SNOW HILL, LONDON, E.C.

THE FINEST TABLE WATER IN THE WORLD.

"Johannis"

NATURAL

NATURAL

WATER.

GAS.

THE NEW, GERMAN, SPARKLING, NATURAL, MINERAL TABLE WATER.

An enemy to Gout and Rheumatism. A friend to Digestion and Circulation.

DELICIOUS PLAIN OR WITH WINES AND SPIRITS. IN BOTTLES WITH SCREW CAPSULES
FOREIGN AND COLONIAL AGENTS WANTED

JOHANNIS NATURAL MINERAL WATER COMPANY, LTD., 5 Great Winchester St., LONDON, E.C.



ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICE:

ORMANBY CHAMBERS, MELBOURNE.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

Post free every country in the world. Single copies, 4d. each supplied by persons connected with the Trade.

For Australian subscribers the subsidiary journal THE CHEMIST AND DRUGGIST OF AUSTRALASIA is included.

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POSTCARD COMPETITION, 1888.

No. 4.

THE following are the candidates for the Pharmaceutical Council in May:—

C. E. Allen	R. Hampson	G. F. Schacht
S. R. Atkins	W. Hills	C. Symes
A. Bottle	N. H. Martin	J. Watt
G. Evans	A. Nichol	G. S. V. Wills
T. P. Gostling	J. G. F. Richardson	J. Robbins

We ask competitors, during the month of April, to name those who they suppose will be the first three as they will come out at the election. We do not ask for figures, but we wish to have on post-cards three names selected from the above list, going in due order the probable first, second, and third.

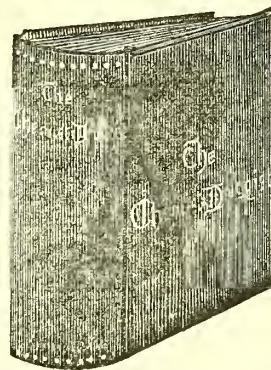
Competitors may be subscribers, or their families, or employees, but a competitor may, on this occasion, make more than one proposal.

We shall take in post-cards; and we shall refuse to accept post-cards when we are surcharged for them. Competitors must therefore be careful to avoid any writing except on the address side of the post-card, such as, for instance, "Post-card competition," &c.

If more than one card should give the names of the first three in the right order, we shall not regard ourselves as bound to give a guinea to each, but shall divide the award as we think proper; but if no one names the three in the right order we shall give the guinea to the one who gets nearest to the correct result.

The pharmaceutical examinations are unusually heavy this month. The London Board met this week, and will resume work next week, when two members of the Scotch Board are expected to be present as witnesses. The latter Board met on Monday, and from that day until Thursday examined a large number of Minor candidates.

THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1s., or by parcels post 1s. 3d., or two for 2s. 3d. We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.



DIARY FOR NEXT WEEK.

Secretaries of societies are requested to send early information of approaching meetings.

Monday, April 23.

Society of Arts, John Street, Adelphi, London, W.C., at 8 P.M. Cantor Lecture. Mr. Richard Bannister on "Milk Supply, and Butter and Cheese-making."

Society of Chemical Industry, Burlington House, W., at 8 P.M. Mr. Kingzett on "Notes on the Manufacture of Chlorine." Messrs. Cross and Bevan, "Further notes on Electrolytic Bleaching—Hermite's Process."

Tuesday, April 24.

Society of Arts, John Street, Adelphi, London, W.C., at 8 P.M. Applied Art Section. Mr. Lewis Foreman Day on "Craftsman and Manufacturer."

Royal Institution, at 3 P.M. Dr. Charles Waldstein on "John Ruskin."

Wednesday, April 25.

Society of Arts, John Street, Adelphi, London, W.C., at 8 P.M. Ordinary meeting. Miss Chreiman on "The Physical Culture of Women." Dr. B. W. Richardson will preside.

Royal Microscopical Society, King's College, W.C., at 8 P.M. Conversazione.

Thursday, April 26.

Royal Institution, at 3 P.M. Professor Dewar on "The Chemical Arts."

Midland Counties Chemists' Association, Grand Hotel, Birmingham, at 8.30 P.M. Mr. Campbell, Pharmaceutical Chemist, Queen's Hospital, on "Notes on Incompatible Prescriptions, with illustrations." To be followed by a musical and social evening.

Friday, April 27.

Royal Institution, at 9 P.M. Mr. James Wimshurst on "Electrical Influence Machines."

Saturday, April 28.

Royal Institution, at 3 P.M. Mr. Carl Armbruster on "The Later Works of Richard Wagner," with vocal and instrumental illustrations.

ADVERTISEMENTS of employers and assistants can be received by us up to the first post on Friday mornings, and will be inserted in the current week's issue.

PARLIAMENTARY NEWS.

THE PHARMACY BILL.

ON Monday Mr. Baird presented a petition from the chemists and druggists of Glasgow against the Pharmacy Acts Amendment Bill.

A petition was presented on Wednesday by Mr. Illingworth from chemists of Bradford against the Pharmacy Acts Amendment Bill.

In commenting on the count-out last week, *The Lancet* says the "fact shows how impossible it is to get any adequate attention in Parliament to such questions as those raised in the Pharmacy Bill—the education of druggists. They are, of course, of enormous importance. The life and death of hundreds perhaps in the year turn upon such questions. But forty members could not be got to consider them. Gentlemen who know nothing of such subjects, and whose tastes are spoiled by the highly spiced debates on party subjects, cannot be expected to come down to the consideration of such tame questions as the education which fits for the druggist's business. Such subjects should be threshed out in a committee appointed for this special purpose."

THE IRISH PHARMACY ACT AMENDMENT BILL.

The North of Ireland Chemists and Druggists' Association have forwarded to a hundred selected members of the House of Lords a very lengthy statement of their objections to the proposed Bill "about to be introduced by Lord Milton" (*sic*).

INVENTIONS IN EXPLOSIVES.

Lord C. Beresford on Monday asked the Secretary of State for War whether, having regard to the rapid progress of invention in high explosives, and the reported adoption of mélinité as the explosive charge of all shells in the French Navy, he would at once form a committee of experts in explosives, with a view of testing the safety and trying the relative disruptive properties of the high explosives known to exist at present as compared with gunpowder, more particularly with regard to their effect on a target representing the unarmoured ends of a ship of the *Admiral* class.

Mr. Stanhope said: We are proposing to the Treasury the formation of a standing committee of experts to test and advise upon explosives. This will, I think, completely meet the wish of my noble friend, and it is a proposal to which we attach great importance.

HAWKERS AND PEDLARS.

In reply to numerous questions put to the Chancellor of the Exchequer on the subject of his proposed Budget arrangements, the Minister said on Monday: The duty which I propose to remit is the revenue licence duty of 4*l.* now paid by hawkers, and not the police licence duty of 5*s.* payable by pedlars. I have received several communications on the subject of hawkers' licences, which show that a good deal of misapprehension exists as to the extent of my proposals, arising probably from the writers forgetting the legal distinction between a hawker and a pedlar. Under the existing law a hawker, from a revenue point of view, is a travelling trader who uses "a horse or other beast bearing or drawing burthen," and he pays 4*l.* a year for a licence. It is this licence duty which my Budget proposals would abolish, leaving the hawker liable to the wheel tax or the heavy van tax, as the case may be. The pedlar, or foot hawker, is not at the present time liable to any revenue duty. He formerly paid 2*l.*, but this duty was abolished by my right hon. friend the member for Mid-Lothian in 1870. In the following year, however, the Pedlars Act made him subject to police supervision, and he pays 5*s.* a year for his police certificate. It is clearly desirable that the hawker who uses a horse should, equally with the foot hawker or pedlar, be under supervision and compelled to obtain a certificate, and I will communicate with my right hon. friend the Home Secretary as to the best way of bringing hawkers within the scope of the Pedlars Act of 1871.

IMPORTS OF PETROLEUM.

Mr. Lafone asked the Secretary of State for the Home Department on April 16 whether he was aware that petroleum was now coming in bulk from Russia in tank steamers right up the Thames as high as the Regent's Canal Dock, and that they discharged with fires alight on board, frequently working night and day; that these steamers often carried upwards of 1,000 barrels, and that so little precaution was exercised in the river that two steamers went into one of the up-town docks lately with inflammable oil in barrels below 73° Fahr., and stored the oil on the quay; and whether he would take immediate steps to bring in a Bill to regulate the storage of petroleum.

Mr. Matthews: The vessels containing tanks refined petroleum oil—not petroleum, to which the *Act* applies—discharge oil in the Regent's Canal Dock, the company having satisfied themselves that such arrangements could safely be permitted subject to the precautions imposed by their ordinary by-laws. The fires which are used to work the pumping engines are suitably isolated and protected. As regards the bringing of petroleum up the Thames, the Conservators allow no vessels having any petroleum, which the *Act* applies to come up above Thames Haven, or in the case of other petroleum or refined oil above Dudmaston Dock, and in the latter case only subject to certain specific precautions, including the production of a certificate that the cargo contains no low-test oil. Diligent inquiries have been made to elicit that any such case as is referred to in the latter part of the question has occurred, and a careful examination of the tests of samples periodically taken by the officers of the Metropolitan Board of Works from the consignments at the London wharves in 1888 discloses only one instance of a sample with a flashing-point as low as seventy-three and one with a flashing-point below seventy-three. A Bill regulating the storage and conveyance of inflammable liquids is in active preparation, and we hope to be able to introduce it this session.

PATENT ASSIGNMENTS.

The Chancellor of the Exchequer, in reply to inquiry on Mr. P. Stanhope, on April 16 said: Some apprehension has existed as to the proper stamp duty chargeable upon instruments which are in form agreements affecting patents, but which operate as equitable assignments of the patents. If the instruments were merely chargeable as agreements, the duty on them would be 6*d.* only; but in cases where they operate as assignments they are chargeable *ad valorem*, duty as assignments or sale of mortgage, or with a duty of 10*s.* as assignments otherwise, as the case may be. In consequence of an erroneous opinion, many instruments which were chargeable as assignments have been registered at the Patent Office when bearing the duty of 6*d.* only; and when the Inland Revenue authorities became aware of this they drew the attention of the officials of the Patent Office to the matter, and to their duty under the Stamp Act. This *ad valorem* duty of 10*s.* per cent. upon the consideration for the assignment on sale, or of 2*s.* 6*d.* per cent. upon the mortgage money in the case of mortgage, is, I think, such as to operate in such a manner as the hon. member appears to forebode. But, however that may be, the Inland Revenue Department have only been executing the law as it now stands in the action they have taken, a law have acted under the statutory authority vested in the Board.

WINE LICENCES.

In answer to Dr. Cameron, and supplementary to last week's question regarding Mexican pulque and rum, Mr. Jackson said: In the case of wines I confess that the amount of alcohol present, and in the case of other beverages the limit adopted by the Commissioners is 3 per cent. proof spirit, beyond which a spirit or other licence is required, according to the nature of the article.

PROFESSOR ROBERTS AUSTEN has found that the tenacity of gold is very much diminished by the small admixture of impurities, and that this follows the order of the atomic weights of elements.

Metropolitan Reports.

THE HALFPENNY LETTER POST COMPANY.—At a meeting of this company held last week, it was stated that the company had come to an agreement with the postal authorities whereby Mr. Hertz's patent envelope, with a slight modification, will be allowed to pass through the post, and the Board of Inland Revenue has agreed to the sale of the stamp envelopes by authorised vendors.

ADULTERATED COCOA.—At the Middlesex Sessions last Saturday Frederick Mean, of High Street, Homerton, appealed against a conviction of Mr. H. J. Bushby, sitting at the Worship Street Police Court, for unlawfully selling cocoa alleged to have been adulterated. The case against the appellant was that on December 3 last, George Simmonds, of Retreat Place, Homerton, went to the appellant's house and asked to be served with $\frac{1}{4}$ lb. of cocoa, for which he paid 3d. He asked the assistant who served him whether it really was "coco" and he was told it was. Edwin Sartwell, sanitary officer for the district of Hackney, corroborated, and said that the cocoa was certified by the analyst to contain 50 per cent. sugar and starch. The Bench confirmed the conviction with costs.

Provincial Reports.

Item of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BIRMINGHAM.

THE ELIMINARY EXAMINATION.—At the local examinations last week, under the superintendence of Mr. Southall, a large number of students entered, amongst them being two ladies.

SWEET NITRE.—The complications which some short time ago arose between the Aston authorities and a chemist on the market relative to the latter's dealing in sweet nitre, and which at one time seemed likely to result in litigation, have been satisfactorily settled.

Poisoning CASE.—At Aston on Saturday an inquest was held on the body of Jane Woodward (21), a pen-maker, who had committed suicide on the previous day owing to a disagreement with her sweetheart. A companion of deceased's was going with her to a chemist's as witness of the purchase. Deceased had stated that the house was overrun with mice, but the chemist refused to supply the poison on the first occasion in absence of a witness. Both signed the book on the second occasion and the poison was obtained.

THE AFFORDSHIRE AERATED-WATERS COMPANY.—The report of the directors to be presented at the fourth annual meeting of the shareholders states that in comparison with the results for the previous year the sales show a slight decrease, mainly attributable to the long winter. After allowing sufficient depreciation and reserves to cover all contingencies the directors recommend a dividend at the rate of 10 per cent. per annum upon the paid-up capital of the company, which will leave a balance of 4*l.* 8*s.* 1*d.* to be carried forward. The retiring directors are Messrs. C. C. Smith and H. Short, who are eligible for re-election.

TEETH.—Under the auspices of the Birmingham Philosophical Society, Mr. J. Humphreys, L.D.S., read a paper on Thursday last week in the library of the Medical Institute, Edgbaston Street, on "Specialisation and Suppression of Teeth." He alluded to the various classes of mammals to show the suppression which had taken place in the different groups from the full dentition which existed in the Tertiary period, and sought to prove that teeth, as other tissues, from disease suppressed; that suppression was taking place at the present time, not only in the various groups, but also in man, whom the lateral incisors and the wisdom teeth were gradually becoming of a diminutive size, and in many cases leading to total suppression. The address was illustrated by numerous models and sketches.

BILSTON.

STRANGE USE FOR EPSOM SALTS.—At the Police Court on Tuesday, Charles Hodgetts, baker, of Coseley, was fined 10*s.* and costs for selling bread containing 22*8* grains of alum in the 4-lb. loaf. The old woman who made defendant's bread said she used Epsom salts in making the bread, but never alum. Defendant said the piece of bread sent to the analyst was not a fair sample.

BRADFORD.

THE PHARMACY BILL.—A petition to Parliament has been sent from Bradford, signed by the whole trade, against the Pharmacy Acts Amendment Bill.

THE MYSTERIOUS POISONING CASE.—The inquest on the girl Lily Holgate, 11, who died on March 26 from carbolic acid poisoning, there being no evidence to show how the poison was administered, was resumed on Monday. The chief constable stated that there were suspicious circumstances in the case. Since the inquest was opened a paper and a bottle had been found, which appeared to have some connection with the case. The bottle bore part of a label upon which a portion of the word "Poison" could be read. The paper bore writing as follows:—

"I poisoned myself, and I am to blame—not my father and mother, who are being tried for my murder, and are innocent. God bless them."

On a piece of the label belonging to the bottle were the initials "R. T. H.," and the words "late Whitehouse." Some two or three years ago there was a druggist named Hawksworth, who carried on business at a shop previously occupied by a man named Whitehouse in Otley Road. Another person had occupied the shop for two years past, and he did not remember anybody having come for anything of the kind which the label of the bottle indicated. The police had made every inquiry, but had been unable to find where the carbolic acid had been obtained. The chief constable's statement regarding the bottle was corroborated by Frank Deacon, chemist, 43 Otley Road, Bradford, who said he succeeded Mr. Hawksworth in the business at that address in October, 1886. It was formerly carried on by Mr. Whitehouse. The label on the bottle was a portion of one of Hawksworth's labels. The word "liniment" was written upon it. Witness did not know the writing. He had occasionally used Hawksworth's labels, but had covered the name with printed slips bearing his own name. He had not seen the father or mother of the deceased prior to the death of the child. It was possible that a label had been used without the printed slip bearing witness's name having been affixed. A brother of the deceased said he did not know Hawksworth's shop in the Otley Road. He had not seen a bottle in his father's house having the words "Liniment—poison" upon it. He had not seen the label on the bottle of carbolic acid, nor did he know the writing on the scrap of paper produced; it was not his sister's handwriting. Dr. Denby, house-surgeon at the Bradford Infirmary, recalled, who had attended deceased, stated that when he called before her death he felt a strong odour of carbolic acid in the house, and inquired if there was any in the house, but was told that there was not. In reply to a further question he was told that there were no bottles in the house containing poison. The inquest was again adjourned.

CHELTENHAM.

THE OLD ANALYST AND THE NEW.—On Monday, April 16, Joseph Cole, grocer, North Place, was charged with selling adulterated pepper, which, according to the county analyst, contained at least 8 per cent. of added mineral matter, and was thereby rendered unfit for use. Defendant said he was in entire ignorance of the fact, and produced a letter written by Mr. Horsley, late county analyst, which stated that he had examined a sample of the pepper, and found the "adulteration" very trivial, and probably accidental. It was so trivial that if he had been in office he should never have thought of bringing the case before the magistrates. The chairman, however, said they must take the county analyst's opinion, and fined defendant 10*s.*, with 1*l.* 3*s.* 3*d.* costs.

LEEDS.

THE BEST DRUGGISTS' SHOP IN LEEDS.—A prize of 2*l.* 2*s.* was offered by the *Leeds Saturday Journal* to the competitor who should get nearest to the general vote in selecting the best grocer's, druggist's, ironmonger's, baker's, draper's, and many other traders' shops in Leeds. Messrs. Taylor & Co.'s shop was at the top of the poll among the druggists, and Messrs. Reinhardt, Goodall, Backhouse & Co., and Smeeton each obtained over 100 votes, ranking in the order named.

MANCHESTER.

MR. JOHN THOMAS SMITH, chemist and druggist, was second on the poll for the Board of Health of Radcliffe.

NOTTINGHAM.

THE PHARMACY BILL.—An open general trade meeting of the chemists of the town and neighbourhood, called by the Nottingham and Notts Chemists' Association, was held at the Milton's Head Hotel on Wednesday evening, April 11. It was more largely attended than any meeting that has been held for many years past, and was of a thoroughly representative character. The subject for consideration was the Pharmacy Bill now before Parliament, with special reference to the question of management of branch shops. Mr. Councillor Fitzhugh, J.P., was voted to the chair. The following resolution was submitted to the meeting:—"The chemists and druggists of Nottingham are glad to know that an amended Pharmacy Act is about to come under the consideration of the House of Commons on its second reading, and trust that it will receive the united support of the three Nottingham members. To all law-abiding chemists clause 3 of this Act affords a solution to the vexatious difficulties under which they have been ruled by the Pharmacy Act of 1868. It has been urged in some quarters that if it became law it would injuriously affect unqualified managers of branch shops. It must be remembered that in so doing they have acted illegally for many years, in direct contravention of the law, *vide* Pharmacy Act, 1868, section xv., thus injuriously affecting the qualified and competent chemist who carries on his business according to the law. Any attempt to register them, either by a modified examination or as certified managers, will be most unjust to those who have qualified themselves by examination. In our view it is a feature fraught with the greatest danger to accept as a principle that persons knowingly breaking the laws of the land for the protection and safety of the lives of the public can have any vested rights in the laws they have broken, and that while they have been exempted from prosecution by the laxity of the Pharmaceutical Society. In carrying out the Act this may have arisen from the unpleasant duty of prosecuting the manager while the principal offender escaped, as also the difficulties always attending the prosecution and proof of guilt where the offence has been by collusion and private arrangement between a qualified chemist in the interest of an unqualified man. We believe by this law the penalty will justly fall upon the proper persons, and will ensure of its being strictly carried out. If the assistants, who are opponents of this Bill, are, as they urge, competent to discharge towards the public the duties of chemists and druggists, they cannot claim to be incompetent to pass the examinations as by law established and carried on under the direct supervision of Her Majesty's Privy Council." A long discussion followed, in which Messrs. Middleton, Lumby, Parker, Bailey, Bolton, Gill, Warriner, Widdowson, Beverley, Jenkins, and Robinson took part. On being put to the meeting the resolution was carried unanimously, and was ordered to be forwarded to Messrs. A. Morley, H. Broadhurst, H. Smith Wright, and W. H. Smith, M.P.s. A resolution was proposed, that "all unqualified managers of branch shops who were engaged in the trade prior to the passing of the Pharmacy Act, 1868, should have granted to them by the proposed new Act a manager's certificate," but the proposition did not find a seconder.

A specially summoned meeting of the association itself was held on Friday, April 13, to discuss the Bill.

It was proposed that the Bill be considered in two sections, the first section dealing with clauses 1 and 2, and the second dealing with clause 3. Mr. Hurd having read clauses 1 and 2,

Mr. Allen proposed that these two clauses be adopted by the meeting. In a very able speech he pointed out the advantages which would accrue from it, that it would do away with the system of cram, so general at the present time; and he placed such confidence in the Pharmaceutical Council as to trust them with the powers it would confer upon them. What was the present position of a country apprentice? He, in a great number of instances, did not study during his apprenticeship, consequently he had to go through a "cram" process, or come into a large town and virtually undergo another apprenticeship. He did not think the Council would ever impose impossible conditions; they were an effective body, and we could always turn them out in due time. Mr. Hurd seconded the motion, and Messrs. Robinson, Turver, Priestly, Ayris, Hunter, Eberlin, and Stanley supported it, some wishing a clause had been inserted compelling the passing of the Preliminary examination prior to apprenticeship.

Mr. Stubbins asked why, if a country apprentice studied well and fitted himself for passing the examination, he might not do so without the burden of a curriculum? It was pointed out to him that a definite course of study was essential, and that the Council would never impose impossible conditions. Ultimately the two clauses were unanimously carried.

Clause 3, relating to branch managers, was then read. Mr. Stanley moved the adoption of this clause. He said it was necessary for the safety of the public. It is notorious that many branch shops were managed by persons incompetent to do so; many were simply shams, consisting of a traffic done by unscrupulous persons in letting out their names. This was unjust to those who tried to be honest, and he would have no exempting clause for branch managers; let them in fairness to the rest pass the present clause, give up their places to those who are qualified.

Mr. Eberlin seconded this, and said that even since 1868 these branches had in most cases been trading in evident spirit of the law, for the Act distinctly said that in the event of a chemist's death the business should only be carried on by a qualified assistant. Now managers had had sufficient time wherein to qualify by examination, and they ought now to try it. In some cases it might cause hardship, but in no case was it the greatest good to the greatest number. It was the greatest good to the greatest number account he begged them to support this clause and with an enthusiasm which would spread throughout the country.

Mr. Hunter would not support the clause as he pleaded the case of the aged branch managers into the streets merely because, through the Pharmaceutical Council in not enforcing the same, he had never known his position.

Mr. Allen said Mr. Hunter had evidently not studied the clause; it did not turn them out into the streets, but gave them four years wherein to pass the examination as a present conducted, and if they were competent to manage branch shops and to train apprentices, they could also be competent to pass the examination. It would be a dangerous precedent to say that because a man had broken the law he should have certain privileges given him. Let him show that, by proper tests, he could prove the difference between Epsom salts and sulphate of like things, and then he would have the same rights as the rest. The clause was supported by Messrs. Williamson, Turver, Ayris, Herrod, Kelkam, others, and eventually, as Mr. Hunter could support him, he withdrew his opposition, thus carried unanimously.

At a meeting of the associates of the Nottingham and Notts Chemists' Association, held on April 13, 1888, the following resolution was carried unanimously:—"Resolved that the associates of the Nottingham and Notts Chemists' Association (the said associates being qualified assistants, senior and junior apprentices), having considered the Pharmacy Acts Amendment Bill, 1888, are of the opinion that the Bill should become law on the following grounds: Firstly, that clauses 1 and 2 of the Bill will be the means of rendering those entering the trade more efficient in the performance of their duties. Secondly, that it is essentially necessary for the interest and safety of the public and will remove the injustice done to qualified assistants, an-

also apprentices placed under the training of unqualified and competent branch managers. Furthermore, we are of opinion that those who are competent to manage branch shop ought also to be capable of passing the qualifying examination as it now stands."

OLDHAM.

Poisoning with Colchicum.—An inquest was held last week at Higginshaw on the body of James Frederick Smith (32), engine-fitter, who had died from the effects of an overdose of colchicum. Deceased had suffered from rheumatic gout, and had got a prescription for its cure from a fellow workman. This was taken to the shop of James Shaw, a herbalist, at 242 Shaw Road, who in his evidence said that the prescription was for 1 oz. colchicum seed, 1 drachm iodide of potassium, slippery elm, and guaiacum; 4d. was paid for these ingredients. He had never made the same prescription up before. He did not tell the boy how the dry were to be used, as he said the person knew. They would be poison unless an overdose was taken. He was not allowed to label anything poison, because he was not allowed to sell it. Other evidence showed that deceased had made decoction of the substances, drinking it in two doses at short intervals. It was also proved that he was in the habit of taking large doses of medicine to relieve him of his gout and had been cautioned against so doing. The *Oldham Express*, commenting on this case, somewhat indignantly says:—"The case emphasises in the strongest manner possible the observations which we have made from time to time on the illegal and dangerous practices of herbalists. The herbalist confessed that he did not label the drugs because he knew that colchicum was a poison, and that he was breaking the law in selling it. Then the jury returned verdict of 'Accidental death,' in defiance of the evidence and the coroner takes that verdict, though the evidence disclosed nothing of an accidental character whatever. Will either the medical profession or the police authority take the matter up? The herbalist has committed offences—practising as a pharmacist without the requisite legal qualification, and selling a poison without a label to indicate its nature, and the result is the death of a man." Yet colchicum is not a poison within the meaning of the Pharmacy Act!

RETFORD.

ABOUT three hours were occupied at the Retford County Court on Wednesday in hearing plaints entered by Dr. Walter Spencer, Retford, against a number of persons living at Gringley-on-the-Hill, where he formerly practised, and at surrounding villages.

SHEFFIELD.

THE School of Pharmacy classes, with the exception of the botany class, close next week, when the examinations for the president's and class prizes will be held. The botany demonstrations will be continued till the end of June.

Blindness with Ammonia.—On Saturday a warrant was granted for the apprehension of Henry Lee, alias Pollard, a publican's waiter, who last month threw some hot solution of ammonia into the face of Alfred Dunmore, an actor, whereby Dunmore has permanently lost the sight of his right eye.

AN alarming affair occurred here on Monday night. Mary Creek, who does not live in the most aristocratic quarter of the town, determined to migrate to what she hoped would be a pleasanter world, and took a dose of poison—a dangerous poison, she thought—to expedite the journey. A policeman was called, who took Mary to the infirmary, where she became quite alarmed when it was found that Friar's balsam acted rather slowly, though surely—next day.

The Assault on Mr. Fox.—The committee whose operations were briefly reported last week have lost no time in carrying their intentions into effect. A requisition was presented to the mayor in due course, and he convened a public meeting on Monday night in the Montgomery Hall, which was crowded to suffocation. There was much lively speak-

ing, great sympathy for Mr. Fox, and indignation at the Recorder. A resolution was unanimously passed, expressing strong disapprobation of the Recorder's conduct, and an addition to it, which moved that a memorial be sent to the Lord Chancellor, praying him to remove Mr. Lockwood, was declared by the mayor to be out of order, as nobody in the world has power to remove a recorder once he is appointed. On the motion of Mr. J. T. Dobb (pharmaceutical chemist) it was agreed to send copies of the resolution to the Lord Chancellor, the Home Secretary, to Mr. Lockwood, and the five members for the borough. Mr. Furness moved a resolution of sympathy with Mr. Fox, and it was also agreed to express appreciation of the services rendered to society by Mr. Fox by presenting him with a public testimonial. Mr. Fox, it may be explained, refused an offer of pecuniary compensation in order to stay proceedings against his assailants.

SOUTH SHIELDS.

MR. RAFFLE, pharmaceutical chemist, Green Street, South Shields, has retired from business, and turned over his stock, &c., to Messrs. Mason & Co., who announce the sale of the entire stock, to commence on Monday, April 23.

SPENNYMOOR.

CHEMIST AND ANTI-VACCINATIONIST.—At Bishop Auckland on Tuesday, Mr. William Bentham, chemist, Spennymoor, was charged with disobedience to the Vaccination Acts. Defendant said one of his children had been killed by vaccination, and he would not be a party to a second case of the kind. Nevertheless Mr. Chaytor, the presiding magistrate, imposed a fine of 10s., remarking that it was quite probable the child was so killed, but if it had lived unvaccinated it might have killed others, supposing it had taken small-pox.

SCOTLAND.

ABERDEEN.

MORE CUTTING.—Mr. David Ritchie is now advertising a material reduction in retail and dispensing charges.

DUNDEE.

THE charge against Dr. Letters for infringing the Bankruptcy Acts has been abandoned by the Crown authorities.

EDINBURGH.

MORE COMPETITION.—It is reported that a firm from Glasgow which became "limited" in order to add a drug department to its business is about to open a branch in Edinburgh.

BOTANICAL.—The season is late. Few flowers besides the ubiquitous coltsfoot are to be seen beyond the confines of cultivated places. A correspondent from Portpatrick tells us that there they are enjoying "signs of summer." He mentions, besides whin, hazel, and alder, that many wild flowers are in full bloom, such as barren strawberry, golden saxifrage, tuberous moschatel (*Adoxa moschatellina*), *Sisymbrium thalianum*, and several other cruciferous species, *Silene maritima*, *Fumaria officinalis*, &c.

THE ginger-beer plant was the subject of some interesting remarks by Professor Bayley Balfour at the last meeting of the Botanical Society. He exhibited a specimen, remarking that the plant is kept by people in the country places in England, who use it for making a drink which they call home-made ginger-beer. To make it, they take a tablespoonful of syrup, which they dissolve in water with a couple of teaspoonfuls of sugar. The ginger-beer plant is put in, and the result is an effervescent drink, which they drink with relish. A bottle of the ginger-beer was passed round the table, but the members were not taken with its quality. Professor Balfour stated that he was anxious to get specimens of the plant to complete observations which he is at present making.

UNIVERSITY EXTENSION LECTURES.—At the half-yearly meeting of the General Council of the University, held on Tuesday, Professor Laurie brought forward a motion that the Council approve of the proposed scheme of university extension lectures, and bring it more prominently before those

locally interested in educational matters. He said they were only endeavouring to introduce in Scotland a system which in England had been very successful. They proposed to offer to country towns a complete course of lectures in the departments of literature, philosophy, science, and art, provided such towns should guarantee a certain payment towards expenses. The scheme must be self-supporting, and the nomination of lecturers is to be subject to the approval of the Senatus.

GLASGOW.

THE Senatus of the University has agreed to confer the honorary degree of LL.D. on C. Schorlemmer, F.R.S., Professor of Chemistry in Owens College, Victoria University, Manchester, and upon Lord Rayleigh.

AN interesting exhibit in the shape of a so-called American "aloe" will be one of the attractions at the approaching exhibition. There is a popular belief that this plant flowers but once in a century. This is erroneous, but it is certain that in cold climates it takes even more than a century to arrive at maturity. The old *Agave Americana* in the Botanic Gardens is certainly more than a hundred years old, and has never flowered. The agave in the exhibition is a different species from its aged friend in the gardens; the leaves are of a deeper green and much shorter. The flower-stalk, which is now only a couple of feet in length, usually attains the height of 30 feet when fully developed; and as it grows about a foot a day in a proper temperature, its progress is perceptible to any ordinary observer. Glasgow people are pleased that this particular plant is gifted with such accommodating virtues as to flower in time for the exhibition.

HAWICK.

A FIRE broke out on Saturday in the shop of Mr. John Craig, chemist and druggist, High Street, and was suppressed before it had spread to any alarming extent.

IRVINE.

BULL IN A DRUG SHOP.—The shop of Mr. Buchanan, High Street, Irvine, was visited on Tuesday night by a bull that had broken away from the control of its guardians. Beyond knocking over a few bottles of scent and specialities he did little damage. He caused considerable fright, however, to the assistants and the customers who were in the shop.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

THE ANTI-VIVISECTION LEAGUE.—Mme. Marie Huot, the secretary of the league, will on April 22 deliver at Lyons a lecture on the chamber of tortures and the life and works of Claude Bernard. It is unfortunate that Paris should not have been selected for the entertainment, but we must not feel jealous if Lyons has now and then a share of the good things.

THE army pharmacists appear to be drooping down in proportion as General Boulanger is looming up. On April 12 the Minister of War issued a long and not very clear order respecting military medical students and their admission to the army hospitals preparatory to their joining the service, but no mention is made of pharmaceutical students. So far as can be understood from the new regulations, pharmaceutical candidates will have to pass medical examinations to be admitted, the same as medical students, and no provision is made for their selection or education. It looks as if M. de Freycinet had been imposed upon.

THE ASSISTANCE PUBLIQUE.—Scarcely a week passes without some complaint appearing in the papers against the management of hospitals. The other day Lariboisière patients were complaining that on Good Friday they had been given meat, and on Holy Saturday six small herrings for seven men; then the nurses were careless about the medicines; the letters were held back three weeks before being delivered; and finally, a madman having jumped from the window, and crushed his skull against a stone seat, part of the brains were left three hours scattered on the seat before it was

cleaned. A more serious accusation was made last week against the *Enfants assistés*, a mother charging the internes with having abused her six years old daughter. It is unnecessary to add that the internes and managers deny the accusation, which for several reasons is improbable on its face, but these scandalous stories have a bad effect.

THE CATHOLIC INTERNATIONAL SCIENTIFIC CONGRESS.—The first congress of the kind, held last week in the Geographical Society building, was largely attended, and admittedly proved a success. The adherents all told numbered some 1,200, about 350 of whom registered with the secretary, and were present at some of the section or general meetings. The congress, as a whole, scarcely interests pharmacists sufficiently to be reported in full, but many of its features were novel and peculiar enough to deserve mention. After announcement, the opening session was held on Sunday, April 8, in the main hall of the Geographical building, and was begun and ended with a general prayer, something quite usual in Paris nowadays. The appearance of the congressmen attracted public notice, the clerical element largely predominating. As a stander-by remarked, there were more cassocks than coats. Indeed, a little crowd collected outside the gate, wondering and passing mild jokes. Two monks, one in the Capuchin brown robes, and another in black, were well stared at, but one also attracting attention was a foreign-looking priest who wore a black frock-coat over his cassock, and a white and blue pearl collar round his neck. Upon inquiry he proved to be a Hungarian, speaking imperfect French, but, like many of his countrymen, excelle Latin. The passers-by quietly wondered in a not unfriendly manner, the neighbourhood not being socialistic, but in case other parts of Paris an outbreak might have happened.

The only business transacted after the meeting had been called to order by Mgr. D'Hulst, the chief organiser of the congress, was to elect officers. Their names give some idea of the character of the assemblage. They were: President of Honour, Mgr. Richard, Archbishop of Paris; President, Mgr. Perraud, Bishop of Autun, and a member of the French Academy; Vice-presidents, Messrs. Brouwers, rector of Boren Kerke, Amsterdam; R. de Cepeda, a professor at the Valencia (Spain) University; Admiral De Jonquieres, of the Académie of Sciences; Baron Kervyn De Lettenhove, of the Belgian House of Representatives; Marquis de Nadailla of the Académie of Sciences; R. F. Perry, Director of the Royal Observatory at Stonyhurst, England; General Secretary, Mgr. D'Hulst, rector of the Paris Catholic Institut Secrétaries, Count R. De Kergolay, Embassy Secretary, Count E. de Chabannes, M. Lemarignier; Treasurer, Abbé Pani; and Treasurer-adjunct, Professor J. Chobert. Among the committee and section officers the following may be mentioned: A. de Lapparent, the well-known scientist; R. F. Smedt, of Belgium; R. F. W. Ward, of England, Professor Kiss, of Temesvar, and Abbé De Broglie.

Most of the papers read related to religious, philosophical, and juridic sciences, with a strong leaning towards metaphysics. Several were written in Latin, and all will be printed in full in the Proceedings to be published. One point of remark in all the addresses or discussions of papers was the elegant language and fluency of the speakers. There were no "haws" or "hems" to annoy the listeners, but always the right word flowing naturally to the right place without apparent effort. In scientific deductions, on the other hand, they were less correct, owing to a tendency to depend too much upon authorities, and not enough upon strict observation. But the lay members soon showed them that, while Thomas Aquinas may be an excellent theological authority, science was not his province. The following were the subjects of the principal papers read in the natural sciences section: The Chinese fauna, by M. David, a Lazarist missionary; on a fossil saurian found in the Aix-la-Chapelle sands, by the Abbé Smets; an investigation on the nature of lichens, by the Abbé Hy; on the spirit of mathematics, by M. Clariana y Ricart; note on the works of Caen Valson; origin and simultaneous preservation of the sun, gravity, by the R. F. Leray; recent observations on the sun, by the R. F. Perry. There were also papers on mechanical chemistry, the theory of dissociation, &c. But among the most appreciated we should place the evening lecture delivered by R. F. Perry on the latest observations respecting the sun's constitution, illustrated with fine calcium light projections.

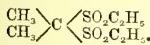
Whome were tempted to call the event of the Congress occurs on Thursday afternoon. Incidentally the topic of transfiguration, or evolution, as Darwin called it, came up before the natural sciences section. The younger members boldly declared themselves evolutionists, and among the advocates of modern theories the Abbé Smets was most conspicuous. Even Mgr. D'Hulst took up the cudgels for Darwin and maintained there was in his theory nothing antagonistic to the doctrine of the Church, provided evolution was considered a possible progressive step of God's creation, and professed it was not contended that man's immortal soul was the result of an evolution process, and the universe had created itself out of nothing. At such declaration, approved almost unanimously, two or three old members shook their heads, and stood aghast, feebly protesting. But the fact remains a sign of the times—that an assembly composed of members and dignitaries of a very conservative church have openly proclaimed it as their opinion that evolutionism—without deciding upon its merits—is not unchristian as a scientific theory. The last session was held on Thursday night, with Mgr. Perraud as president, assisted by the Bishop of Versailles and other prelates. The president closed the ceremony with an exquisite address, worthy of an Academician, and an episcopal benediction concluded the first Catholic Scientific Congress.

GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

A NEW AFRICAN REMEDY.—Mr. G. A. Krause is drawing attention to a new fever-plant from the Dark Continent. This German African explorer made his way from Agra, on the Gold coast, to the district of Timbuctoo—about 4,000 or 5,000 kilometres—in about a year and a half, quite alone. He carried as luggage a 30-lb. package, but no arms or ammunition at all, while in the form of money he had 57, 11s. 8d. The antifebrile plant of which he writes was resorted to by him in consequence of his running short of quinine. He found it an excellent substitute. Krause sent some samples of the drug to medical men, but unfortunately they have been lost on the way and have never reached their destination, although the identification of the drug is very desirable.

SULFOL, A NEW Soporific.—In my last I mentioned a new anesthetic; for a change we have now a new soporific introduced. The body proposed is di-ethyl-sulphonic-dimethyl-n-hane; it is produced by the oxidation of a mixture of ethyl mercaptan and acetone, and is represented by the formula:



Its trivial name is to be "sulfonal." It occurs in tabular crystals, which are without colour, odour, or taste. It is soluble in 18 to 20 parts of boiling water, or in 100 parts of ether at the normal temperature. In alcohol or a mixture of alcohol and ether it is much more readily soluble. The compound is not decomposed by oxidising agents, nor by acids or alkalies either in the cold or when warmed with them. Professor Kast, in the *Berl. Klinisch. Woch.*, publishes the therapeutic results which he has obtained with it, first when administered to animals, and then confirmed upon the human subject. The provings were made upon twenty healthy men, seven of whom were medical men, and showed that from 3 to 4 grammes (about 1 drachm) could be taken without any unpleasant secondary effects or evil consequences. Professor Cramer, of Marburg, tried it in 300 different doses upon sixty patients, and Professor Bäumler used it in private practice on thirty different patients in 120 doses. The average dose was 2 grammes (about 30 grains), or to women at 15 grains, while in very robust male patients 45 grains were required to produce the desired effect. Almost immediately after half an hour after the administration of the compound very deep and tranquil sleep commenced, and from five to eight hours, and was not followed by the slightest after-symptoms. Particularly where insomnia was consequent upon illness, or in the case of the sleepless insane, it was found to be very beneficial. Pro-

fessor Kast points out that among the considerable number of "acetals" which have been proposed as hypnotics, such as methylal, hypnone, urethan, paraldehyd, and amylenic hydrate, only the two last-named have proved to be really valuable. Other members of the disulphonic group have also been examined for therapeutic value, such as acetone-di-methyl-sulphon, methylene-di-methyl-sulphon, &c., but without encouraging results. With regard to the dispensing of sulfonal, it was given simply in 15-grain powders, either in wafers or shaken on a little water, early in the evening. As it is quite tasteless the addition of a corrective is unnecessary.

SURGICAL CONGRESS.—At the Surgical Congress just held in Berlin some interesting communications were read. One by Dr. Brieger was on piomaines. It is known that certain germs are associated with the production of these compounds, and the author succeeded in cultivating the micro-organisms and preparing platinum and gold compounds of the poisons produced in their presence. In this way he obtained the poison of tetanus and of toxic mussels, which he injected into rabbits and other animals. The diagnosis and prognosis of cancer was naturally a prominent topic. Dr. Fischer, of Breslau, made a communication respecting faecal stones, which had been extracted from the intestines of patients suffering from ileus. It was specially mentioned that carpenters are particularly liable to suffer from "stones," which are composed of shellac. Members of this branch of trade are often addicted to drinking polish, which contains a considerable proportion of shellac, for the sake of the alcohol. The resin, when brought into contact with the aqueous liquids of the intestines, is precipitated, and agglutinates into solid masses. The author has removed two such stones of shellac from the intestines of carpenters. Another paper, possessing some attraction for pharmacists, was one by Rossbach on the production of pus by chemical means. It was for a long time a subject of contention whether pus was the production of micro-organisms or whether it arose from the irritation of inorganic bodies. Rossbach has succeeded, under the most rigid aseptic conditions, in producing purulent ulceration by the application of mercury and oil of turpentine.

MEDICAL CONGRESS.—The Medical Congress for Internal Medicine, at which Professor Leube took the chair, was also not without features of interest to pharmacists. One paper was by Professor Binz on alcohol and its value in medicine. He pronounced it to be from a medical point of view an irritating medical agent, and added that it was a great mistake to employ it so largely as had been the practice, especially among young medical men. The brandy-bottle should, he said, never be countenanced as a regular portion of the sick-room furniture. Not unworthy of remark, too, was a communication of Dr. Cornet, who stated that he had made extended experiments with rabbits and guinea-pigs inoculated with the tubercle bacillus. These he despatched to the famous health resort, Davos, in order to test its renowned climatic advantages. The description of this somewhat fantastic proceeding elicited great amusement. The Congress will meet again next year in Wiesbaden.

QUACKS FEES.—Attention has been directed to illegitimate medical practice by a police case recently before a Berlin court. A certain quack had sent in a bill of 3,000 marks, which out of special clemency he had moderated to 1,000. This sum was to be liquidated by monthly instalments of 50m. The treatment for which he put in this mild claim was that of a case of diabetes, but it had not produced any appreciable benefit. He averred in court that for ten years he had obtained numerous successes from his mode of treatment, but his eloquent defence does not seem to have had much effect, for he was sentenced to a year's imprisonment. Not the least amusing factor in the case was that the patient was a policeman. The German custodian of the peace is regarded as a particularly sapient individual, and the spectacle of such a victim to the quack system is edifying.

GENUINE PRESCRIPTIONS.—In Germany prescriptions can only be legally dispensed when bearing unequivocal signs of having really emanated from a medical man. For this reason every chemist ought, and is supposed, to know the signature of every medical man whom his customers visit; and the officer of any local authority is expected to acquaint the resident pharmacists with the signature of any doctor who comes to reside in their neighbourhood. Of course in large

towns like Berlin it is quite impossible for the chemist to obtain an intimate knowledge of the methods of every doctor, and it is therefore now strongly recommended that only such prescriptions shall be made up as show the printed name and address of the prescriber, in order that there may be no doubt about the origin of the prescription. Of course, legally, the chemist should refuse all prescriptions brought in by visitors and travellers from outside districts, because he has no guarantee of their genuineness. What would British pharmacists say to such a restriction?

FAMILY DISPENSING.—A case has engaged the attention of the law courts which throws some light upon the conditions of the pharmaceutical trade. Two medical men, proprietors of a sanatorium for patients suffering from nervous diseases, were accustomed to purchase drugs and chemicals in bulk from a chemist, and having these dispensed as occasion arose in smaller quantities to the patients in the home. The chemist brought an action against the doctors, alleging that his business was interfered with, and that the defendants were acting illegally in dispensing the medicines. In this case, however, the court declared against the plaintiff on the ground that one is allowed to prepare medicines for the members of his own family, and that the residents of the home alluded to could be regarded as the members of the doctors' family in a wider sense.

HOUSE DISINFECTION.—The great floods in Germany which have excited so much sympathy have been followed by unpleasant consequences from a hygienic point of view. The Government is therefore now furnishing details of the methods of disinfection, and recommends for the purpose a mixture of 20 pints of crude carbolic with 11 pints of crude sulphuric acid. Both liquids are well mixed together and allowed to stand a few days. It is supposed that this mixture, which is similar to the so-called sulpho-carbolic acid, is stronger than either crude or pure carbolic acid. For applying to purposes of disinfection to different parts of the house the above named liquid is recommended to be used in a 5 per cent. solution.

Trade Notes.

MESSRS. P. ROGERS & CO., of 48 Green Street, Birmingham, have just issued an illustrated price-list of dispensing and other scales suited for chemists and druggists.

ANTIPYRINE is reported to have been the favourite febrifuge with the doctors in attendance on the German Emperor in his recent relapse.

MESSRS. RIDGE'S new advertisement, of the plump little cherub who has been brought up on their food, and who is engaged in shifting the heavy furniture, is one of the most striking of recent pictorial trade effects. A copy of it appears in this issue.

MESSRS. BURROUGHS, WELLCOME & CO. are now ready with their counter-cases with bent-glass fronts, containing a dozen neatly-capsuled bottles of saccharin, to sell at 2s. 6d. each. The bottles are provided with miniature metallic spoons, measuring the usual dose for a cup of tea or coffee.

THE Spanish Directorate of Agriculture, Madrid, are in want of tenders for the supply of apparatus and fittings for twenty chemical laboratories for the examination of wines. The official estimate of the cost is 50,755 pesetas (2,000*l.*), and security for 1,500 pesetas (60*l.*) is required.

THE homeopathic pharmacies so long conducted by Mr. William Gilbert, at Bournemouth, will henceforth be carried on under the style of Gilbert & Hall, in accordance with the announcement made last week to the effect that Mr. J. T. Hall has transferred his energies from Edinburgh to Bournemouth.

MESSRS. BURGESS, WILLOWS & FRANCIS, of 101 High Holborn, announce a change in the style of their firm to Willows, Francis & Butler. Mr. Burgess ceased to have any interest in the firm in 1855, and the new partner, Mr. Charles Butler, was formerly in the firm of Foulger, Butler & Bedell, of St. George's Street, E., which was amalgamated with the Holborn house five years ago.

EDINBURGH CHEMISTS', ASSISTANTS AND APPRENTICES' ASSOCIATION.

A MEETING was held at 36 York Place, on April 11, at 9.15 p.m., Mr. George Lunan, President, in the chair. The first paper read was on

COMMERCIAL COMPOUND SYRUP OF THE PHOSPHATES.

By William Taylor.

In this the author contrasted the syrups now in the market with those of 1876, which were examined by Dr. W. L. Howie, F.C.S., phosphates of iron and calcium and free phosphoric acid being looked for. The iron was estimated by precipitation as hydrate dissolving this in hydrochloric acid and titrating with potassium bichromate; lime by precipitation as oxalate, and weighing as carbonate after ignition; the free acid was estimated as pyrophosphate of magnesia, after combined phosphates had been thrown out of solution. Eight samples of the syrup were examined, and the results are recorded in the following table. Samples A and B were obtained from Edinburgh wholesale firms; C and D from London wholesale firms; E was a sample made according to the B.P.C. formula; F and G were obtained from two nondescript pharmaceutical institutions; and H was a grocer's sample.

Sample	Sp. Gr.	Grains per Fluid Ounce $\text{Fe}_3\text{P}_2\text{O}_9$	Grains per Fluid Ounce $\text{Ca}_2\text{P}_2\text{O}_7$	H_3PO_4 per Cent.
A	1.326	3.56	7.23	5.85
B	1.32	4.77	7.23	5.35
C	1.328	1.88	8.27	3.66
D	1.33	3.71	6.72	5.1
E	1.324	4.25	6.72	6.23
F	1.328	2.5	3.1	6.46
G	1.312	2.0	3.1	3.66
H	1.316	2.27	5.17	4.83

Examination for sulphuric and hydrochloric acids showed that the latter was contained in apparently unusual quantity in the case of C and D, being added to take the place of phosphoric acid. The syrups were in other particulars very different, and the results as a whole justified the author in suggesting that a formula for the syrup should be given in the British Pharmacopoeia.

The next paper read was on

THE PURITY OF SOME COMMON ECLECTIC REMEDIES.

By A. R. Bennet.

Within the last twenty or thirty years a new class of substances known as eclectic resinoids have come into use in medicine, and several of them are now being largely prescribed. They get their name "eclectic" from having been originally introduced by a class of American medical practitioners known as eclectic physicians. The designation "resinoid" is expressive of their general character, and at the same time indicates their somewhat indefinite composition. The general process for their manufacture is to exhaust the drug with alcohol, evaporate to a syrupy consistency, pour into a large volume of cold water, collect, wash, dry the resinous precipitate which separates. When medical men prescribe a certain medicine, they expect to get certain results, and if by any cause the medicine may have been of an inferior quality, the results, of course, would be very misleading. Having frequently observed considerable variation in the appearance, colour, and solubility of the doses under notice, it occurred to me that a report on a few samples of some of the more commonly used members of the group would prove interesting; and it was with a view to ascertain the purity of these resinoids as found in shops that I have made these experiments. The tests which were used in each case were : (1) The percentage solubility in rectified spirit was taken; (2) the percentage of ash was next estimated, and the ash was examined; (3) Fehling's solution was applied as a reagent to indicate the presence of any saccharine substance; and (4) tincture of iodine was used to detect starch. Five samples of each resinoid are reported up. In the

colour salts 1 is taken as the lightest and 5 the darkest, the oils are between.

Podophyllin.

Sample	Colour of Sample	Colour of Tincture	Percent-age Sol. in S.V.R.	Percent-age of Ash	Composition of Ash
A	1	1	Almost entirely 90	Traces	—
B	2	3		4	Silica and traces of iron
C	4	5	93	6	Sulphate of soda
D	4	4	40	30	Sulphate of alumina and silica
E	5	5	85	14	Sulphate of alumina and potash

Sam A slightly reduced Fehling's solution and was extrem high in the colour. On applying Perrin's test green angles were distinctly observable, indicating the presen of berberine. Sample B showed small white particles under the microscope, and the ash had the colour of pumice one. Sample D microscopically showed wood cells, giving that it was contaminated with some other substai, probably powdered podophyllum rhizome.

Hydrastin.

Sample	Colour of Sample	Colour of Tincture	Percent-age Sol. in S.V.R.	Percent-age of Ash	Composition of Ash
A	1	1	69	Traces	—
B	3	3	76	20	Sulphate of alumina and silica
C	3	4	74	10	Sulphate of alumina
D	3	4	80	13	Sulphate of soda and silica
E	5	5	58	17	Sulphate of alumina and traces of potash and soda

Sam : A was in the form of a rough powder and contained ood cells. When heat was applied a strong persistentarry odour was given off. Sample B contained wood cs, and on drawing a spatula over it, a grittiness was distinc felt. This sample also emitted a tarry odour when heat w applied, and much more so than sample A. In sample, when examined microscopically small crystals were observ, and when a spatula was drawn over it a roughness was fe. The tincture was of a dirty brown colour, and would not filter clear. Sample D contained wood ce ll, and thodour on applying heat was not nearly so strong as in the se of sample C. The same was the case with sample E, whi under the microscope showed wood cells and small crystal

Euonymin.

Sample	Colour of Sample	Colour of Tincture	Percent-age Sol. in S.V.R.	Percent-age of Ash	Composition of Ash
A	Dark green	2	73	14	Carbonate of lime, phosphate of lime, and iron
B	Olive brown	1	60	14	Phosphate of lime, iron, carbonate of lime, and traces of silica
C	Pale green	3	40	24	Phosphate of lime, carbonate of lime, iron, and silica
D	Olive brown	2	60	10	Phosphate of lime, iron, and silica
E	Pale green	1	46	45	Carbonate of lime, phosphate of lime, iron, and silica

The are two varieties of euonymin found in the market, a green and an olive brown. The former is in greater demand than e latter, and seems to be the more popular of the two. was struck with the colour of sample A as being inten green. I suspected that sap green had been added. To corroborate this a small quantity of the resinoid was reat with as little water as possible to dissolve out the

gum of the sap green, the solution was filtered, and on the addition of spirit a dense white precipitate came down. To confirm, a small quantity of sap green was treated in the same manner, and the same results obtained. I, therefore, concluded that sap green had been used as the colouring agent in that sample. I treated samples C and E in the same manner, and found that E threw down a precipitate, while C was not affected. Samples A and B reduced Fehling's solution. Tincture of iodine gave no reaction.

Iridin.

Sample	Colour of Sample	Colour of Tincture	Percent-age Sol. in S.V.R.	Percent-age of Ash	Composition of Ash
A	3	1	60	Traces	—
B	2	1	55	2	Carbonate of lime and iron
C	5	2	58	3	Iron, lime, and silica
D	1	1	60	3	Carbonate of lime and silica
E	5	3	63	4	Carbonate of lime, iron, and silica

From these results it would seem that the samples of iridin are not at all what they should be as far as their solubility in spirit is concerned. Each sample was examined microscopically, but nothing indicating the presence of spurious matter could be observed. Tincture of iodine and Fehling's solution were applied, but no reaction took place, thus proving the absence of starch and saccharine matter. The ash that is left behind after incineration is only what one would naturally expect from an average sample of the drug. Possibly the lime may have existed in the root as oxalate.

Leptandrin.

Sample	Colour of Sample	Colour of Tincture	Percent-age sol. in S.V.R.	Percent-age of Ash	Composition of Ash
A	5	5	94	Traces	—
B	2	3	93	2	Iron, lime, and traces of silica
C	2	3	93	3	Carbonate of lime and iron
D	4	5	96	3	Carbonate of lime and iron
E	5	5	97	Traces	—

From the above results it seems that leptandrin is not subject to adulteration. I have, therefore, come to the conclusion that there are samples of podophyllin, hydrastin, and euonymin in the market which are not pure, and that the samples of iridin and leptandrin which I have met with are pure; perhaps the reason why they are not adulterated is that they are less frequently in demand. In the case of remedies so largely used as euonymin and podophyllin, the variations observed are of importance, and cannot be regarded as satisfactory. I would suggest that samples of these, as well as other resinoids, should always be examined before being taken into stock.

The reading of the papers was followed by a discussion which was taken part in by Messrs. Dougal, Duncan, Henry, Lunan, McEwan, Taylor, and Wilson, and votes of thanks were awarded to the authors. Thereafter, Messrs. Dougal and Wilson having been appointed auditors, the chairman intimated that at the next meeting the prizes in connection with the "Ainslie" pharmacy competition would be presented.

VEGETABLE OILS, with the exception of castor and resin oils, are generally supposed to be optically inactive, but a recent investigation by W. Bishop, Jr., shows that this is not quite correct. The following are the results obtained with a 200m. tube at the normal temperature:—Almond oil—0°7°, earth-nut oil—0°4°, colza oil (German)—2°1°, colza oil (Japanese)—1°6°, linseed oil—0°3°, nut oil—0°3°, poppy oil—0°0°, olive oil—0°6°, and sesame (various samples) from +3°1° to 9°0°. If a sample of oil, linseed oil for example, has a right-handed rotation, this may be due to adulteration with either resin oil or sesame oil, or a mixture of the two.

Legal Reports.

THE PHARMACY ACT.

At the Penrith County Court, on Friday last, before his Honour Judge Hastings Ingham, the Pharmaceutical Society of Great Britain sued Thomas Williamson, patent-medicine vendor, King Street, Penrith, claiming from him the sum of 5/-, being the amount of a penalty alleged to have been incurred by him for having, on December 19 last, sold a quantity of laudanum, contrary to the statute made and provided. Mr. F. J. Greenwell, Newcastle, barrister-at-law, instructed by Messrs. Flux & Leadbitter, of London, appeared for the plaintiffs, and Mr. Paisley was for the defendant.

His Honour not thinking it necessary for Mr. Greenwell to open his case,

Ellen Thornborrow was called. She said on December 19 last she went to Mr. Williamson's shop and asked for two-pennyworth of laudanum. One of the boys was in when she went, but Mr. Williamson came to her and asked her her name before he gave her the laudanum. She also bought twopennyworth of sweet nitre. She received the laudanum and nitre in separate bottles.

His Honour: Does he profess to be a chemist?

Mr. Paisley: No, your Honour.

Mr. Greenwell then produced the two bottles. That which contained the sweet spirit of nitre had the defendant's name on the label of the bottle; but the name of the defendant was not on the label on the laudanum bottle.

Witness, continuing, said she gave the bottles to Mr. Biggs, assistant with Mr. Redfern, and he sealed them up.

Cross-examined by Mr. Paisley, witness said she was living in Penrith last January. She knew Mr. Biggs was an assistant with Mr. Redfern. She did not know Mr. Redfern was the agent in Penrith of the Pharmaceutical Society. She did not know he instituted proceedings at the Penrith Police Court in January against the defendant.

His Honour: What has she to do with that?

Mr. Paisley: Have you done this at the instigation of Mr. Redfern?—No, sir. Mr. Biggs came to a place where I was nursing, and asked me to go on these errands, and I did so.

Then you went at the instigation of Mr. Biggs?—Yes, sir. And he is an assistant to Mr. Redfern?—Yes, sir.

I suppose it was a trap?—I don't know; I go errands for anyone.

In reply to the Judge, Mr. Paisley said they denied the sale of this laudanum altogether, and was about to refer to the previous case before the magistrates, when Mr. Greenwell objected to his doing so, on the ground that it had nothing to do with the present case.

His Honour (to Mr. Paisley): You say, then, that this woman is not speaking the truth?

Mr. Paisley: I do. He was summoned before the Penrith magistrates on December 29.—

His Honour: I have nothing to do with the magistrates. She swears you sold her laudanum.

Mr. Paisley: Which my client denies, your Honour.

His Honour: Very well. Let's have your corroboration.

Mr. Biggs, assistant with Mr. Redfern, was next called. He said his employer was the local secretary to the Pharmaceutical Society, and it was his duty to report any infringement of the Pharmacy Acts. On December 19 last he instructed the last witness to go to the defendant's shop to purchase some laudanum.

Mr. Paisley: This is not evidence against my client.

Mr. Biggs: I didn't see her get the laudanum, but I saw her come back with these bottles, and in her presence I sealed them up. Before sealing up the bottle containing the laudanum, I took it across to Mr. Williamson. I told him he had no right to sell poison, that he had infringed the Act, and that I would communicate with the authorities in London, from whom he would hear in due course. He didn't deny the sale, but said it wasn't his practice to sell poisons.

Cross-examined by Mr. Paisley: Will you swear this man did not say the charge was untrue?—He did not say so.

Will you give me his exact words?—He said nothing about that particular sale.

His Honour: Suppose he did. He says to-day it is a false charge.

Mr. Greenwell said he did not think it necessary to pro-

duce further evidence, but if it were necessary he could send for Mr. Redfern, who saw the woman come out of the shop after purchasing the laudanum.

His Honour: How are you going to meet this, Mr. Paisley?

Mr. Paisley: We deny it. We say these charges have been got up at the instigation of a man who is jealous of Mr. Williamson, who carries on the business of a patent-medicine vendor opposite Mr. Redfern's shop. The charge was gone into before the magistrates, that we kept open this shop—

Mr. Greenwell: That was not the charge.

Mr. Paisley: The summons was in the same terms, that we had sold poison—

His Honour: I have nothing to do with what was before the justices.

Mr. Paisley: But it is a matter for observation in this case, which is instituted by the Society, as was the last.

Mr. Greenwell: The other was not instituted by the Society.

His Honour: It is quite immaterial whether it is or not.

Mr. Paisley: In January last they gave certain evidence of sales, and if this was known then why was it not produced? But the question now resolved itself into this. Would his Honour believe the story of this woman or not of Mr. Williamson, who would tell them that when he took over the business of Mr. Bowron, a chemist, all the poisons kept by him were taken away, and he had never sold them, and this charge was absolutely untrue. Mr. Bowron himself would corroborate that part of the story, and Mr. Williamson was a respectable man, against whom these proceedings had been instituted by a rival.

His Honour: That is all very well, but the woman is not a rival.

Mr. Paisley: She admits she was sent by a rival.

His Honour: No doubt.

Mr. Paisley said it was not likely that Mr. Williamson would perjure himself for 5/- He could have paid the money into court, and not have subjected himself to an inquiry, but at the Police Court he invited inquiry, and I would also to-day deny the charge.

His Honour: Well, put him in the box. I don't know that there was any conspiracy to make him say what was wrong.

Mr. Greenwell: The Society are performing a public duty.

His Honour: I know they have no interest in.

Mr. Paisley: This man Redfern has.

His Honour: What?

Mr. Paisley: He is a rival to him in business.

Thomas Williamson was now called. He said he had seen the woman Thornborrow in the town, but did not know her. He did not sell her any laudanum. He had never sold laudanum to any person. When he took over Mr. Bowron's business Mr. Bowron took all the poisons away, and he had the name "chemist" erased.

His Honour: Did you ever sell this woman anything?—I sold her nothing.

His Honour: Be careful. She said you sold her her name, and there is a bottle there with your name on it.

Mr. Paisley: But you positively deny that this bottle which has been produced was sold by you or in our shop?—I do?

Ellen Thornborrow: You came and asked for my name before you gave it me.

His Honour: You know it is usual to ask persons' names before selling poison to them?

Mr. Williamson: Yes.

His Honour: This woman says you asked her name?—I never had her in my shop that I know of.

Mr. Paisley said as it was a case of the credibility of the witnesses he thought he would be justified in putting in some testimonies relating to the character of the defendant. He had the very highest testimonials from juries of the peace in this district.

His Honour: There is no allegation that this woman is not to be believed.

Mr. Paisley: But you see how it has been done.

His Honour said the same thing was done in other places, and it had been done by a public society.

Mr. Paisley: You are asked to exercise summary jurisdiction in a case of a criminal nature.

His Honour: I have unfortunately to deal with disagreeable case, and I am sorry to say I cannot always believe the party that stands highest in society, and I cannot disbelieve this woman. Is there no mitigation of the 5*l.*?

Mr. Genwell: No, your Honour, there is not.

Mr. Pley: I have further corroborative evidence of the defendant's story that poisons have never been sold in his shop. I has a manager.

His Honour: Suppose he has; he may have sold plenty of things knows nothing about.

Mr. Pley: But if he comes and says nothing of the kind has ever been about the premises or sold—

His Honour: It was about the premises when he first took possession of them.

Mr. Pley: I can put Mr. Bowron in the box to prove that was not so.

John Bowron was then called, and said that when Mr. Williams took over his business he removed all the poisons from the shop, and he now had them at his house. He also told him have "chemist" taken off the door, and he had it done. I knew Mr. Williamson about a year before he took over the business, and had always found him a truthful, honest man.

In reply to his Honour, Mr. Biggs here stated that he told the woman he wanted the laudanum to put a stop to the sale of poison by the defendant.

Mr. Paey: If your Honour will refer to what was done before the justices—

His Honour: I have nothing to do with that. You ask me to believe this is a conspiracy got up by perjury, positively nothing else.

Mr. Paey: Look at the discrepancy between this woman's statement and that of Mr. Biggs. He has just told us that he told the woman for what purpose he wished her to go to the shop, id she swore she didn't know what it was wanted for.

His Honour: I have a duty to perform, and I cannot believe the woman has committed perjury. The poison may have been inadvertently sold, but that I cannot help.

Mr. Paey: Supposing a person had come into this court to-day, and asked your Honour to impose a penalty upon a man for an offence committed in December after having had a case decided in January by the justices—

His Honour: You are putting a case that does not exist. It is not I cannot alter the opinion I have formed.

A verdict was accordingly entered for the plaintiffs.

Mr. Grewell asked for costs on the scale above 20*l.*

His Honour: No, no.

Mr. Grewell: I ask for the expenses of the analyst, who has been brought from Manchester.

Mr. Paey: I don't object to that.

Mr. Grewell then asked for a certificate for counsel's fees.

His Honour: Oh, the Society will pay them.

THE MEDICINE STAMP ACT.

At Bow-street Police Court on Wednesday, before Mr. Vaughan, Marcus Leon, of Blundell Street, King's Cross, alleged to be carrying on business as the British Hygienic Society, was summoned by the Board of Inland Revenue on a charge of infringement of the Medicine Stamp Act by selling a casket of a medicine called "Almond Popoline" unstamped which, it was alleged by the Board, had been rendered liable to medicine-stamp duty by recommendation in an advertisement contained in THE CHEMIST AND DRUGGIST January 28, 1888.

Mr. E. Alpe conducted the prosecution on behalf of the Board of Inland Revenue, and Mr. Leon defended himself.

Mr. Alpe briefly stated the case, and put in the advertisement in THE CHEMIST AND DRUGGIST. He then called Albert Day, an Inland Revenue officer, who proved having written to the British Hygienic Society, sending a postal order for £1, for which he received a packet of almond popoline and a bottle of embrocation as advertised. The former was not stamped. The postal order was traced by a clerk from the post-office, and the authorisation of the advertiser in THE CHEMIST AND DRUGGIST was proved by George Anderson (who attended on subpoena).

The defendant stated that he was not the proprietor of the business, it was merely employed to manage it, and received

a royalty on what was sold. In reply, Mr. Alpe called James Dott, from the affidavit department of the High Court of Justice, who produced an affidavit signed by Marcus Leon wherein he swore *inter alia* that he was now carrying on business in co-partnership with Ludwig Kroll under the style of the British Hygienic Society. In reply to the magistrate, defendant admitted that he had made that affidavit.

Mr. Vaughan: Then unless this is true you have committed perjury?

The defendant said he was a partner only in regard to the trade-mark.

Mr. Alpe said the defendant was liable (according to section 2 of the Act), whether he sold the article either on his own account "or on the account or behalf of any other person or persons."

The defendant further maintained that the advertisement was given by Kroll, and not by him, and that, according to a mass of correspondence which he had in his hand, which passed between himself and the Board when he was carrying on business in the Grosvenor Road, Fulham, a previous claim made by the Board for 30*l.* penalties had been withdrawn on condition that he altered certain handbills. This, he said, had been done.

Mr. Vaughan then read from the advertisement that "The British Hygienic Co.'s Almond Popoline keeps the feet sweet and healthy, the skin smooth, absorbs perspiration, allays irritation. Almond Popoline has proved a boon to everybody who has used it, as thousands of testimonials show, and should be kept in every household. Applied night and morning to the feet it will keep them sweet and healthy, will prepare them for severe exercise, protect the feet from chills and the hands from chapping. Many people die through neglecting their feet. Use Almond Popoline." He said there could be no doubt that this recommendation brought the article within the scope of the statute, and it was clear from the evidence that both as an agent and as a partner the defendant was a person who had sold the preparation. He understood that a considerable trade had been done in the article, and that the Board had two other informations against the defendant, but that they did not intend to proceed on more than this one. He should inflict a penalty of 10*l.*

The defendant asked if the magistrate would grant a case for the Court of Queen's Bench.

Mr. Vaughan: Yes; you can have a case if you like.

PERFUMED SOAP.

In the Chancery Division on Monday, Mr. Justice North was engaged in hearing an adjourned summons taken out by Messrs. Hodgson & Simpson, soap manufacturers, of Wakefield, for leave to register a trade-mark for perfumed soap, notwithstanding the opposition of the Lion Soap Company, of Bradford.

Mr. Higgins, Q.C., explained that the mark which Messrs. Hodgson & Simpson wished to register was a figure of Britannia, with a lion and the motto, "*Labor Omnia Vincit*"—the motto of the town of Bradford. The Lion Soap Company opposed the application, but confined their opposition to the lion and the motto, on the ground that in combination they were calculated to deceive the public. Messrs. Hodgson & Simpson had carried on business for seventy years, whereas the Lion Company was only established in 1882, and the evidence failed entirely to bear out the allegations that the trade-mark was calculated to deceive the public. The opposition was based on the ground that the company had had a constant and exclusive user of a lion mark since August, 1882; but this was denied. The opposition related to class 48, confined to perfumery and perfumed soap, but the applicants had also applied to register a similar trademark in the class relating to common soap, and had already registered a figure of Britannia on their trade-mark for medicated soap. The motto was a common Latin one, was used by many firms in a variety of trades, and was also the motto of Mr. Edward Simpson, of Walton Hall, near Bradford. The affidavits filed in the case were then read.

Mr. Cozens Hardy, who appeared to oppose the application, read the affidavit of the manager of the Lion Soap Company, to the effect that the company registered their trade-mark in classes 47 and 48 in 1887. The company was

established in 1882, but took over a much older company. The goods of the company were stamped with the figure of a lion, and the soap was known as the "Lion Soap." The applicants had not used their proposed mark up to the present, and it was of great importance to the Lion Company that their mark should not be infringed. Other affidavits of a like character were also read. The learned counsel submitted that the mark in question ought not to be registered.

Mr. Justice North suggested that the applicants should consider whether they could not adopt the figure of Britannia without the lion.

Mr. Higgins said that other Britanniæ might be in use in the soap market.

His Lordship said he would reserve his judgment for a fortnight, in order that it might be ascertained in the meantime whether the suggestion he had thrown out could not be acted upon.

SALE OF FOOD AND DRUGS ACT.

IN the Queen's Bench Division on Thursday, before Justices Cave and Smith, the case of *Betts v. Armstead* came on for hearing. It was a case stated by the justices of Nottingham under the Sale of Food and Drugs Act, 1875. A local baker sold to the purchaser a loaf which was afterwards found to contain alum. Proceedings were taken by the borough inspector of nuisances. The baker said he was not aware that the loaf contained alum, and that if it did it must have been in the flour, and on the ground that he had no knowledge of the existence of alum in the loaf, the justices dismissed the case. The inspector of nuisances appealed, and on his behalf it was contended that the 6th section of the Act made the respondent liable to the penalty, whether he knew that the bread contained alum or not. The Court upheld that view, being of opinion that, as nothing was said in the section about knowledge, the Legislature had intended that it should be excluded.

AGENCY OR SERVICE.

MR. W. D. HOLBROOKE, whose trial at Manchester on charges of embezzling over 900*l.* from the Birmingham Vinegar Company we reported last week, was brought up again on Thursday at the Manchester City Court and discharged, the stipendiary ruling that he was the agent and not the servant of the company.

FAILURES AND BANKRUPTCY REPORTS.

F. P. DENMAN, 100A Bow Common Lane and 11 Duckett Street, Physician and Surgeon.

AT the London Bankruptcy Court on April 13, Mr. Registrar Giffard had before him an application for the discharge of this bankrupt, who was described as late of Edinburgh and Glasgow. The bankruptcy took place in December, 1887, on a creditor's petition. The statement of affairs filed in the proceedings showed total debts 1,214*l.* 7*s.* 3*d.* (1,157*l.* 2*s.* 5 unsecured), and assets, after providing for preferential payments, 2*l.* 16*s.* 6*d.* The Official Receiver stated that no dividend could be reported from the assets; that the debtor purchased his present practice in April, 1886, for 900*l.*, of which 500*l.* was given to him by his father, and the rest was borrowed money; that the failure was attributable to the expenses having exceeded the earnings of the practice, which proved less remunerative by 300*l.* or 400*l.* a year than was represented to him at the time of the purchase; and the failure was also attributable to competition in the neighbourhood, and to loss consequent upon his taking another house in order to better his position. The Official Receiver further reported that the bankrupt had failed to keep books sufficient to show his position. There was no opposition, and his Honour, not regarding the only offence reported as a serious one, looking at the fact that the bankrupt was not a trader, granted a free order of discharge.

LOCKWOOD & LEITH, St. Helens, Chemical Manufacturers.

A SECOND meeting of the creditors of the above firm was held on Tuesday at the office of the Official Receiver, Liverpool, to confirm or otherwise the proposal made by the debtors at a previous meeting to pay 5*s.* in the pound. Mr. Oppenheim, solicitor, attended on behalf of the debtors, and there was a large gathering of creditors.

The Official Receiver said he had received an offer from Mr. Hawkins, solicitor, of Liverpool, on behalf of a client to pay 6*s.* composition and all costs. Mr. Hawkins, who was present, confirmed this, and said he was preferred, if a trustee were appointed, to sign a contract at 5*s.*, and to pay down 1,500*l.*

It was understood, but not stated, that the offer in question was on behalf of Messrs. Gamble & C. After a long and heated discussion the voting was taken upon the debtor's offer. Voting papers had been sent in to the amount of 3,121*l.*, and the resolution was now signed by creditors representing 13,125*l.* After going carefully through the signatures, the Official Receiver declared the resolution to be not carried. Subsequently a creditor arose in the room and desired to sign the resolution, which the Official Receiver declined to allow, stating the vote had been taken. A question was then raised as to taking the matter before the Court. Ultimately the meeting was adjourned to May 3.

GEORGE HENRY MARSTON, Lordship Terrace, E. Dulwich, late Forest Hill, Chemist.

ON Thursday a meeting was held before Mr. Registrar Hazlitt for the public examination of this debtor who failed on March 6 last. The statement of affairs shows total liabilities 1,243*l.* 1*s.* 6*d.*, of which 716*l.* 1*s.* 6*d.* is expected to rank, and assets 17*l.*, all of which, however, is set up in preferential claims. In examination, the debtor stated that he was a chemist, and had been in business since 1864, at which time he had a capital of about 50*l.* in 1872 he effected a private arrangement with his creditors, but he could not say what the amount of the liabilities was at that time; he believed they amounted to 200*l.* He had a composition of 5*s.* in the pound to the creditors. In 1884 his furniture and stock was taken for rent, since when he had been living from hand to mouth, and had incurred small debts. In 1884 he had on mortgage 170*l.*, and 1*l.* on two reversions. He received the money in 1886, but did not apply that sum to payment of his then existing debts. His books showed the creditors and debtors to his date. He had only failed once, on the occasion he had mentioned. There was no opposition, and the learned Registrar ordered the public examination to be concluded.

EDWIN RIPPON, 85 Upper Street, Islington, Chemist and Druggist.

THIS debtor applied on Tuesday to Mr. Registrar Brougham to pass his public examination upon accounts showing total liabilities 324*l.* 19*s.* 8*d.*, of which 270*l.* 15*s.* 8*d.* is expected to rank, and assets 91*l.* 1*s.* In examination by Mr. Howell, on behalf of the Official Receiver, the debtor stated that he was a chemist and druggist, having commenced business in 1878 with a borrowed capital of 800*l.* He repaid the whole of that amount in the first six years. He attributed his failure to the falling-off of business in consequence of the pulling down and rebuilding of certain premises by the Metropolitan Board of Works for the purpose of making a new road. He also attributed his failure to greater competition in business. In January last he called a meeting of creditors. In that month he gave a bill of sale to his brother, who advanced him 95*l.* With part of that money he paid off a creditor who had issued a writ against him, and the remainder was to pay a composition of 5*s.* in the pound, which was, however, rejected by the creditors, and he turned the money to his brother. He had never failed before. In the absence of opposition, the examination was ordered to be concluded.

TO REMOVE OIL-STAINS FROM MARBLE STUARY.—Make a paste with fuller's earth and hot water, cover the spots with it, let it dry on, and the next day wash it off with soap.

NEW COMPANIES.

THE has been a great increase since the introduction of the Buct in the number of new companies registered at Somers House, so as to avoid the payment of the new duty of 17 per cent. of nominal capital which comes into operation with the Act. Between April 4 and 11, 107 new companies, with an aggregate capital of over 25,000,000*l.*, were registered. This is the largest amount of business yet recorded in any one week.

The foregoing paragraph was written, we learn from the offi 1 returns that the aggregate capitals of the companies registered between March 28 and April 17 amount to 52,113*l.*, whereas during the whole of the year 1887 the aggregate was only about 159,000,000*l.* Between January 2 and April 17 of the present year the aggregate capitals of new companies represented 99,400,000*l.* This amount, under the Buct proposals, would yield to the Exchequer a revenue 99,400*l.*

ALFR. R. MATTHEWS (LIMITED).—Capital 7,500*l.* in 1*l.* shares. Object, to trade as mineral-water manufacturers.

BRITISH SODIUM AND ALUMINIUM COMPANY (LIMITED).—Capital 1,050,000*l.* in 10*l.* shares.

MINERAL OIL EXTRACTION COMPANY (LIMITED).—Object, to acquire and work Rose's patent for the extraction of mineral oil. Capital, 200,000*l.* in 1*l.* shares.

FENN & CO. (LIMITED).—Capital, 60,000*l.* in 10*l.* shares. Object, to deal in any kind of mineral, vegetable, or animal oil (crude or refined), and, if necessary, to refine or otherwise make the same saleable.

SOUTH AMERICAN PETROLEUM COMPANY (LIMITED).—Capital, 10,000 5*l.* shares, and 1,000 1*l.* founders' shares. Object, to purchase the petroleum estate known as the Hacienda Mina Brea and Parinias, situate in Payta, Peru, and to work the same.

GERTRUDIS WATER COMPANY (LIMITED).—Capital, 40,000*l.* 1*l.* shares. Object, to acquire lands, &c., in Germany and elsewhere, and to purchase the mineral water springs now as the Gertrudis Springs, and to carry on the business of manufacturers, dealers, and shippers of mineral waters. The first subscribers are:—E. A. Beresford, solicitor, 21 Hereford Square, London, S.W.; A. C. Kennedy, gentleman, 82 St. James's Square, London, S.W.; R. H. Milward, gentleman, Linthurst House, Brooms Grove; P. A. Scratchley, barrister-at-law, 4 The Sanctuary, Westminster Abbey, S.W.; Lord W. Court, Ardfry, co. Galway, Ireland; P. W. Moore, gentleman, 12 Astwood Road, S.W.; and G. B. Darley, gentleman, Fuston Lodge, Filey. The first directors shall be H.S.H. Prince George of Sohns-Braunfels, E. A. Beresford, A. C. Kennedy, and P. A. Scratchley, with remuneration at the rate of 150*l.* per annum, the chairman receiving 200*l.* per annum.

Gazette.

PARTNERSHIPS DISSOLVED.

Hearde & Riches, Torquay, chemists and druggists.

Hearde & Grimshaw, Torquay, wine merchants and mineral water manufacturers.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS.

Delpel George Marius (trading as G. M. Delpel & Co.), Mining Lanctot, Havre, France, and Greenhithe, Kent, colonial merchant and banker.

Dobson George, Leicestershire, chemist.

Milner, Ward, New Cavendish Street, and Micheldever, Hampshire, doctor of medicine.

Scott, William, Huddersfield, doctor of medicine.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

Morris, William, Ellesmere, Salop, veterinary surgeon—April 24, Cow Hall, Wrexham; April 24, County Hall, Wrexham.

Ross, Arthur, jun., Cripps, Isaac, and Cripps, Henry (trading as Cripps, Ross & Co.), Swan Mead, Bermondsey, size and gelatine makers—April 24, 33 Carey Street, Lincoln's Inn; May 2, 34 Lincoln's Inn Fields.

Storr, Bartol, Boston, commission agent and mineral water manufacturer—April 26, Deputy Official Receiver's office, Boston; May 3, Sessions House, Boston.

ADJUDICATIONS.

Barnes, Lawrence Robert (trading as Barnes & Co.), York, chemist and druggist.

Barnes, William Jacob, Rainham, Essex, chemical manufacturer.

Kelly, John Anderson, Ida Street, Bromley-by-Bow, oil and colourman.

Milner, Edward, Micheldever, Hampshire, and New Cavendish Street, London, surgeon.

DAY APPOINTED FOR PUBLIC EXAMINATION.

Chittenden, Charles Pierce Downey, Bexhill, surgeon—April 23, Town Hall, Hastings.

NOTICES OF DIVIDENDS.

Hilton, William, Whitefield, near Manchester, chemist and druggist—first and final div. of 1*s. 4*gd.** April 25, 16 Wood Street, Bolton.

Vickerman, Thomas, late of Kidderminster, now of Kingston-upon-Hull, wholesale druggist and pickle manufacturer - first and final div. of 5*s. 2*d.** any day, Official Receiver's office, Hull.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Nicholls, James, Chelmsford, doctor of medicine—discharge granted.

Notes of Novelties.

LOOFAH SPECIALITIES.

MESSRS. ARNO ELSTE & Co., of 98A Curtain Road, E.C., are introducing various novelties made of the loofah, which are certain to prove profitable articles for sale by chemists as well as welcome additions to the toilet. These comprise bath gloves and belts, socks, &c., all of which are well made and, in the case of the bath requisites, tastefully trimmed with good Turkish towelling. The advantages of having the loofah in belt form are obvious; belts may be had with both sides of loofah, or with one side loofah and the other Turkish towelling. The socks have been found to be very absorbent, and, as they can be washed and dried quickly, they are less obnoxious than those made of straw.

KAHLBAUM'S LIPANIN.

IN THE CHEMIST AND DRUGGIST of February 25, page 244, our German correspondent called attention to certain investigations which have been made by Professor von Mering, of Strassburg, on the action of cod-liver oil. The result of these investigations resulted in the curious discovery that the oil owes its specific action to the free fatty acid which is always present, but not in constant quantity. For the latter reason, Professor von Mering proposed that a standard preparation should be made; and as he found olive oil to be as effective in fattening power as cod-liver oil, while it is much less objectionable in taste, he proposed that this oil should be used after partial saponification, so that 6 per cent. of free oleic acid should always be present. This preparation he called "Lipanin." It is made by Mr. C. A. F. Kahlbaum, of Berlin, and a sample of it which we have received proves the usefulness of Dr. von Mering's suggestion. The lipanin is evidently made from a superior kind of olive oil. It is perfectly devoid of unpleasant taste and odour and in these respects it is likely to be acceptable to those who have a repugnance towards cod-liver oil. The rancid odour which generally characterises oleic acid is in this case absent, and the appearance of the preparation closely resembles that of cod-liver oil.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds for objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." The address of the Patent Office is Southampton Buildings, London, W.O.

From the "Trade Marks Journal," April 18, 1888.

"EXCELSIOR"; for furniture-polish (66,776), and for furniture-cream, emery, &c. (70,612). "The Acorn"; for knife-polish (70,597). By John Oakey & Sons, Westminster Bridge Road, S.W.

"BRISTOL SODA-WATER," and other wording, in white letters on black; for an aerated water. By H. W. Carter and E. M. Wright (trading as H. W. Carter & Co.), Wildor Street, Bristol. 67,436.

Figure of a stopper opener attached to a bottle; for stoppered-bottle opener. By F. A. Walton (trading as C. F. Palmer & Co.), 54 Hylton Street, Birmingham. 68,328.

Oval label, bearing designation and monogram of depositors; for aerated waters. By W. S. Cartwright and J. T. Cartwright (trading as T. S. Cartwright & Son), Wigan. 68,821.

"MEADOW SWEET WINTER BALM," on label; for various articles for the toilet and perfumery (Class 48). By T. D. Wright, pharmaceutical chemist, Stockport. 68,895.

"A. ARNOLD'S GIPSY OINTMENT," and illustration, on round label; for chemical substances (Class 3). By A. Arnold, outfitter, 101 High Street, Sutton. 70,011.

"PHENACETIN," other wording, and signature; for a new antipyretic (substitute for quinine). By Farbenfabriken, vormals Friedrich Bayer & Co., Elberfeld. 70,066.

"NICHOLLS AND LAWTON'S SILVER-PASTE," and other wording, on fancy label; for a compound for washing silver goods. By Nicholls & Lawton, 113 Lancing Road, Sheffield. 70,378.

"GLOVERS," and also figure of a cock; for medicated soap. By H. Glover, Son & Co., Hommerton Street, Bradford. 70,730, 70,732.

Designation and signature of depositor; for aerated waters. By R. Hesketh, 21 Derby Square, Preston. 70,841.

"MENTHOLINE," and heraldic design, with figure of tooth in centre; for a medicinal preparation for neuralgia, &c. By J. H. Edward, 117 Stockport Road, Ardwick, Manchester. 71,463.

"LEMON SELTZ," and view; for a substance used in the preparation of an aerated beverage. By T. Charlton, tailor's assistant, 4 Alexandra Terrace, Undercliff, Bradford. 71,800.

Round label, with figure of a top and designation of depositor; for mineral waters, including ginger-beer. By P. Horrobin, Derby Street, Bolton. 71,834.

"SIMCO'S TONGUE & FEVER POWDERS," other wording and illustration, on fancy label; for a patent medicine. By E. C. Ashford, 32 Gold Street, Northampton. 71,920.

"J. MILLS"; for non-alcoholic beverages and aerated waters. By J. J. & A. W. Mills, Ossory Road, Old Kent Road, S.E. 72,145-6.

"RUBRUNG, RUBESSENT, RUBOLEUM," and signature, on label; for medicines. By G. Stocker, 1 East Southernhay, Exeter. 72,566.

"REAL HELIOTROPE FLOWER FLAVOURED PASTILLES," and bunch of heliotrope, on label; for pastilles for the breath. By Warrick Brothers, Old Swan Lane, E.C. 72,857.

"CALVERT'S CARBOLIC TOOTH POWDER," and other wording, on band and round labels; for tooth-powder, &c. By F. C. Calvert & Co., Bradford. 72,875-6.

MARRIAGE.

[Notices of Marriages and Deaths are inserted ee if sent with proper authentication.]

GRIFFITH—MANSFIELD.—On April 3, at Bourton Shrivernham, Bucks, by the Rev. R. W. Mansfield, father of the bride, Matthew Henry Griffith, chemist, Exmouth, sixth son of Charles Griffith, Bath, late of Weston-super-Mare, Alice E. Mansfield.

DEATHS.

COUTTS.—On April 13, Mr. James Coutts, chemist and druggist, Echt, N.B.

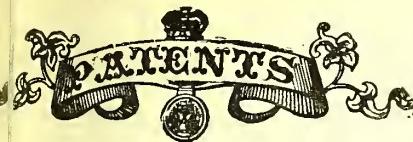
EXELBY.—At Buccleuch Street, Dalkeith, on April 16, Jane Aitken, relict of William Exelby, chemist. Ed 69.

NICHOLLS.—On April 14, at Culme Terrace, Plymouth, Samuel J. H. Nicholls, chemist. Aged 31.

ROBBINS.—Cable messages have been received London this week announcing the sudden death, from heart disease, on Sunday last, of Mr. Daniel Cox Robbins, the head of the well-known firm of McKesson & Robbins, wholesale druggists, of New York. Mr. Robbins was a man of great honour, and was well known and highly esteemed among all the commercial circles of the city where he lived. He was a mons as an authority on all matters affecting the drug trade, and wrote the annual reports on that branch for the New York Chamber of Trade. The firm, of which he had been a member for over fifty years, was originally founded by Messrs.



George M. Olcott and John McKesson, Mr. D. Robbins was one of their principal clerks, and his services proved so valuable that, after being six years in their employment, he was admitted to partnership. Mr. John McKesson retired from the business in 1885, at the age of 78, and died about a year after. Mr. Robbins must have been close on 80, but retained his energy and vigour to the last. Some years ago he was a warm advocate of free trade, but his views seem to have altered in that respect of late years, coincidently with the foundation of the New York quinine works, in which he held large stock. The firm of McKesson & Robbins consists now of Messrs. John McKesson, jun., William Hull Wickham, Herbert Robbins, and Lawrence L. Vennard. Dr. Charles A. Robbins, a former partner and the eldest son of the late principal, now devotes himself exclusively to the quinine manufacturing business. At the time of Mr. McKesson's retirement it was stated that the firm did an annual business of over \$3,000,000, and that they had more than 350 persons on their staff. They now employ over 400 persons, and their turnover has, we presume, increased in proportion.



[The offices hitherto sent by the Patent Office to applicants for patents, reminding them of the date for filing a complete specification, will not in future be issued.]

The following applications for Patents have been registered at the Patent Office.

Camph.-locket.—4,387.—March 22, 1888.—J. Young. A camphor cross or locket.

Cattle Diseases.—3,896.—March 13, 1888.—L. Mandl. Preventing the contagious disease in lungs of cattle.

Clinical Thermometers.—4,140.—March 17, 1888.—J. J. Hid. Manufacturing clinical thermometers.

Cocoa.—220.—March 19, 1888.—D. Sprüngli & Son. Processor rendering cocoa soluble or assimilable.

Consumption.—3,511.—March 7, 1888.—W. H. Davies and G. Ghouse. Mixture applicable for the destruction of the cilli of consumption and other diseases.

Drop-bottles.—4,693.—March 27, 1888.—L. Friedrich and C. Gesser. Bottles and stoppers for delivering liquids in drops.

Embrocation.—3,322.—March 3, 1888.—D. B. W. Sladen. Embrocation for the relief or cure of strains, rheumatic and similar affections.—3,499.—March 7, 1888.—E. A. undon. Embrocation for horses or cattle.

Evaporating-pan.—4,398.—March 22, 1888. T. G. Pascall. A cabined evaporating and propagating pan.

Feeding-bottles.—3,705.—March 10, 1888.—G. V. de Luca. Fitings of feeding-bottles and the like.

Fining.—3,193.—March 2, 1888.—E. Thatcher. Manufacture of brewers' "finings," and in apparatus therefor.

Funnel.—4,831.—March 29, 1888.—B. Nickels, jun. Filtering funnels.

Gasogenes.—3,416.—March 6, 1888.—S. H. Burgess. Manufacture of gasogenes.

Gelatin &c.—3,256.—March 3, 1888.—A. H. Hobson. Treatment of bones for use as manure, and for obtaining from the bones gelatine, &c.—4,765.—March 28, 1888.—A. Hobson. Treatment of bones for fertilising purposes, and for obtaining gelatine, &c.

Iron Odes.—4,155.—March 17, 1888.—E. A. Jones and F. F. Jones. Method or process of separating oxides of iron.—4,187.—March 19, 1888.—T. Bayley. Manufacture of oxide of iron.

Iron Sphosphate.—3,613.—March 8, 1888.—F. F. Jones. Preparation of sulphate of iron and manufacture of colouring matters therefrom.

Meat Extract.—4,631.—March 26, 1888.—S. M. Caffyn. Preparation of liquid extract of meat.

Medic Electricity.—3,979.—March 14, 1888.—W. G. Johnson. Construction of plates and arrangement of fasteners for connecting them in voltaic order for medico-electric purposes.

Oxygen.—3,967.—March 14, 1888.—A. Brin. Apparatus for the extraction of oxygen and nitrogen from the air.

Oxygenated Water.—3,530.—March 7, 1888.—Brinsford Oxygen Company (Limited) and P. B. W. Goble. Manufacture of a carbonated oxygen water.

Pill-roller.—4,750.—March 28, 1888.—F. D. Delf. Apparatus for making into a globular shape pills and the like.

Powd. box.—3,364.—March 5, 1888.—J. W. Houldsworth. Box for holding blue or other powdered materials.

Quinine Hydrochlorate.—3,949.—March 14, 1888.—P. M. Justice. Manufacture of hydrochlorate of quinine.

Respiration (Artificial).—3,912.—March 13, 1888.—H. H. Lake. Apparatus for producing artificial respiration.

Sodium Metasulphite.—4,262.—March 20, 1888.—A. Boake, F. G. A. Roberts, A. Shearer, and W. B. Giles. Production of sodium metasulphite.

Trusses.—3,251.—March 2, 1888.—H. M. Colwell. Trusses.—4,392.—March 22, 1888.—A. Livesley. Permanent relief and ultimate cure of hernia by means of improved truss pad.

Specifications of Patents recently published

1887.

- 2,963. A. & L. Q. Brin. Chlorine. 4*d.*
- 3,523. J. W. Brown. Feeding-bottles. 6*d.*
- 3,824. W. Wilson. Specific for toothache. 4*d.*
- 4,686. H. Gall and Viscount A. de Montlaur. Chlorates of the alkalies, &c. 6*d.*
- 4,881. W. Majert and G. Richter. Producing hydrogen gas by a dry method. 8*d.*
- 5,003. C. D. Mayer. Pads for the periodical discharges of women. 6*d.*
- 5,532. E. Edwards (*Jeger*). Disinfectant, &c. 6*d.*
- 5,586. F. Crane (*Hale*). Lacquers and varnishes, &c. 6*d.*
- 5,641. J. Broad and others. Nig'it-lights. 8*l.*
- 5,655. G. E. Davis. Softening and purifying water. 4*d.*
- 5,791. F. Crane (*Hale*). Compound for coating metal, wood, &c. 6*d.*
- 5,824. J. W. Knights and W. D. Gall. Carbolic acid, &c. 6*d.*
- 6,107. H. Gardner (*Henderson*). Separating carbonic oxide from nitrogen, &c. 6*d.*
- 7,118. C. S. S. Webster. Inhaling ammonium chloride. 8*d.*
- 16,239. J. Tinlin and others. Compressing drugs, &c. 8*d.*

1888.

- 84. J. A. McClelland. Cleaning and polishing the teeth. 6*d.*
- 399. C. L. W. Lang. Preparation for the cure of fever, &c. 4*d.*
- 603. C. R. Dames. Preparing Fuller's earth. 4*d.*

The following Patents have become void through non-payment of renewal fees:—

1880.

- 2,914. R. Neale. Chemicals for purifying air.
- 2,964. J. Imray. Distilling ammoniacal liquor.
- 2,992. W. J. Clapp. Obtaining extracts from tea, &c.
- 3,221. W. Haworth. Composition for washing, &c.
- 3,867. B. Hoffmann. Oleine, &c.
- 4,512. T. J. Pickles and others. Grinding dye-woods, myrrabolans, &c.
- 4,772. W. J. Clapp. Compound for polishing metals.
- 4,968. J. F. N. Macay. Dissolving and filtering in chemical processes.

1881.

- 3,395. J. C. Mewburn. Surgical apparatus.
- 3,602.—A. J. M. Bolanachi. Essences of fruits, &c.
- 4,195. C. J. Davidson. Compound for coating surface of iron.

1882.

- 3,516. H. Hides. Surgical supports, &c.
- 4,636. J. Webster. Bismuth, &c.
- 5,565. F. S. Barff and another. Extracts of meat.

1883.

- 3,397. H. H. Lake. Clarifying saccharine liquors.
- 3,435. J. Imray. Bleaching ozokerit, &c.
- 3,777. A. G. Brookes. Golden sulphuret of antimony.
- 3,856. C. D. Abel. Soda crystals.

TRADE "SANITAS" MARK. DISINFECTANTS

(FLUIDS, POWDER, SOAPS),
NON-POISONOUS, PLEASANT, AND BEST.
Used by more than 1,000 Boards of Health and Hospitals.
Gold Medals, Calcutta 1883-84, Paris 1885, Antwerp 1886.

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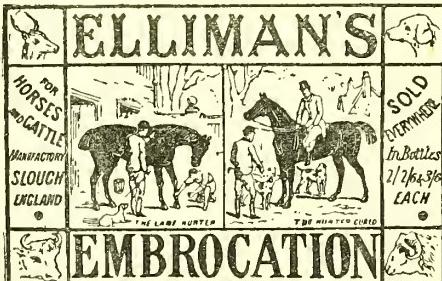
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For RHEUMATISM, GOUT, and SCIATICA, Chronic Skin Diseases, Scrofula, Rickets, and some Diseases peculiar to Women.

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MUMFORD'S PARIS 1875 PURE CRUSHED LINSEED

17/- per cwt., bag included, 18/- in 28 and 56 lb., 20/- in 7 and 14 lb. parcels
1 lb. tins, 5/- per doz. Best Quality. No Oil Extracted. Carefully Cleaned and Ground, so as to retain the natural colour of the seed without being heated.

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SILICATED CARBON FILTERS

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SLACK & BROWNLAW'S FILTERS

CANNING WORKS
MANCHESTER

A. M. TODD'S CRYSTAL WHITE DOUBLE REFINED OIL OF PEPPERMINT.

SEE SEABURY & JOHNSON'S ADVERTISEMENT
ABSORBENT COTTON LINT AND GAUZE on page 57.

FAULDING'S (EMU BRAND)

Eucalyptus Oil
Fletcher, Fletcher & Stevens
HOLLOWAY, N.

EDITORIAL NOTES.

CHEMISTS AND THE PHARMACY BILL.

DR. SYMES, it appears, was not announcing a policy of Bloomsbury when he declared at the Liverpool meeting some degree of sympathy with the unqualified managers whom Lord Milltown threatens to disestablish. His sympathy was evidently personal and platonic, and Dr. Symes was anxious to nip in the bud the hopes of any managers who might be tempted from his side, or from our interpretation of it, to place any trust whatever in the Pharmaceutical Council. The situation is interesting; we might almost describe it as comic. Here is the Pharmacy Bill half-way through the legislature, to which a real

important clause has been added by the House of Lords. The whole Bill is the work of the Pharmaceutical Council, though in its present form it is a compilation of separate effects. Since it has included legislation in regard to branch shops, much interest has been taken in it, and no one can doubt that the body of the trade see in that clause a serious hope of pharmaceutical legislation of a substantial character. With this prospect in view the Pharmaceutical Council have abandoned every effort to help the Bill through Parliament. They have had two meetings since the new clause was added to it, and they have made no sign of their opinion. More than that, they seem to have somehow managed to muzzle one another. They who claim to be and should be the leaders of pharmaceutical opinion and its public exponents do not do more at public meetings than "occupy neutral ground," to use Dr. Symes's expression; a state of existence which can hardly have been congenial, and is certainly not habitual with the speaker.

The neutrality is almost as certain to destroy the Bill as active opposition. There is an excellent chance of the Bill becoming law this session, but it wants pushing. If it finds no honest supporters any opposition will be strong enough to stop it. As far as could be gathered from Mr. Kelly's prettily demolished speech which we reported last week, that gentleman had the vaguest possible idea of the effect or intention of the Bill; but his misapprehensions are as good as serious arguments in the absence of definite supporters. The curriculum, it is true, has awokened no enthusiasm in the country, nor was it likely to do. But why chemists should trouble themselves to oppose it has never been made clear. The only possible effect it could have would be to reduce by the smallest percentage the admissions to the trade, a result which we should have thought those already in could have contemplated with equanimity. The opposition of branch shop owners and of their unqualified masters is intelligible, and it is only fair to the latter to say at their case has been presented in the most temperate and reasonable tone. Perhaps the worst enemies to the Bill are those of its friends who wish to make it accomplish too much. The claims which some of our correspondents put forward are such as a minute's consideration must show no British Parliament would admit for a moment. These wild suggestions only impede the discussion, however; they do not affect the progress of the Bill. Petitions from Glasgow and Bradford, such as we report this week, against the Bill, and the active efforts of interested opponents, will certainly suffice to break the slender thread of its existence unless those who see in it some value rally to its aid. What is wanted is that associations as well as individuals who are in favour of the Bill should try to interest their Parliamentary representatives in it, so as to ensure that, if it gets another chance, at least forty of them shall put in an appearance, and shall support what is reasonable and fair.

A PILULAR REVOLUTION.

BRITISH pharmacy has undergone many changes during the past twenty years; changes are still going on, and the prophecies, even those in high places, predict that the craft will ere long suffer a differentiation which will place the retailer of drugs on one side and the compounding master on the other. That there are grounds for this prediction no one attempts to deny, and reasons accumulate which strengthen it. Certainly it is, for example, that the pharmacist is fast ceasing to be a pill-maker; ere long the cognomen whereby for generations he has been known of all men will become a misnomer; and the expectant youth, who enters upon his passage with a profound veneration for "bangs and stinks,"

will have something else than a tough pill-mass to initiate him into the mysteries of pharmacy. What has brought about the change? Enterprise on the part of manufacturers, no doubt; but enterprise is useless if there be no demand, and a demand for ready-made pills exists, and has been created by the changes in the retail trade—"stores," cutting prices, and an over-consumption of tea having each had an influence. From inquiries which we have made, we learn that in all parts of the kingdom the demand for ready-made or coated pills is enormously on the increase, so that, instead of this branch of the pharmaceutic industry being confined to a few special houses, the most conservative metropolitan and provincial firms are placing their own manufactures on the market. The purchasers, as a rule, are those who have ready-money businesses, especially amongst the working-classes, and who find it unprofitable to divide their energies between retailing and manufacturing. It seems odd that what was possible for our forefathers in pharmacy should not be possible now. They combined the two branches profitably, and pharmacy, it is believed by some, was on a higher level then than now. But conditions have altered; pharmacies are more numerous, demand greater, and small profits with quick returns are the rule. These factors are those which render manufacturing impossible to many. There remain still, happily, those who have the ability and who can afford to exercise the pharmaceutic art in its fullness, and it is a good thing for pharmacy that "the sweet influence" of such men remains amongst us.

Apart from the influence which this modern development has upon pharmacy as an art, there are growing indications that ready-made pills are not in themselves an unmixed good. The medical press has recently brought forward complaints regarding the insolubility or inactivity of "factory-made" pills. This is by no means a new discovery. The insolubility of pills, "factory-made" or otherwise, has often been referred to, and unquestionably this characteristic is due in a large measure to long keeping, and in some measure to incompatibility or insolubility of the pill ingredients and their excipients. Before "factory-made" pills became popular with the public and the trade, it was the custom of chemists to make only limited supplies of pills, generally sufficient for a week, and rarely more than a month's supply was made at one time. Now that the large manufacturers are the producers, chemists have been tempted to depart from the old rule, to buy grosses in place of the dozens which they used to make, and it is but natural that these goods after prolonged storage should fail to give complete satisfaction. This is more especially the case with uncoated pills, and it is obviously not the fault of the manufacturer. We regard this purchase of large supplies as one of the greatest evils which chemists have unwittingly stumbled into, and the results are so easily remedied or prevented that retailers should, rather than purchase large quantities at long intervals, place with their manufacturers standing orders for weekly supplies. Most manufacturers, we understand, are willing to make as small a quantity as one gross of pills from special formulae, and stock pills may be obtained in even less quantity. There would doubtless arise a certain amount of inconvenience and increased cost, but these would be nothing compared with the greater freedom from complaint and the assurance that the retailer is doing all that is possible in the circumstances to insure the freshness of his stock. Already we know of pharmacists who advertise the fact that they make their own pills, and who take good care to emphasise, if not exaggerate, the evil of buying "factory-made" pills.

Factory-made pills are not the only pills reported to be insoluble. Last week we recorded that a physician had found certain quinine pills, freshly made with tragacanth, quite in-

soluble in the alimentary canal. Amongst the cardinal principles of pill-making are (1) that the pills should be round, (2) that the excipients used should be chemically and therapeutically compatible with the medicinal ingredients, and (3) that the pills should disintegrate readily. We fear that in many cases these principles are adopted in the order given. Many dispensers appear to consider that a good workable mass, which will roll out into pills which will not "fall," is the first law of pill-making, and to this thoughtless procedure is due much of the dissatisfaction which has been expressed regarding prescription-pills. Prescribers are in the greater measure to blame for this, as they have persisted in naming the excipient which they wish to be used, and which in numerous cases is wholly unsuited for the purpose. Dispensers have thereby been compelled to get willy-nilly the ingredients into workable form, and this at the expense sometimes of solubility. We require more work in regard to pill excipients, and if the President of the Pharmaceutical Society had not declared so recently as last week that the work of the research laboratory should by preference be of a chemical nature, we might have suggested with some hope of results that this is a subject well worth the attention of those who are to work in that institution. Hitherto there has been too great a tendency to get all-round excipients, and, considering how little we know regarding many drugs, it is not surprising that excipients and drugs often refuse to part company once they have been brought together. What is required may not be an excipient for each drug, but we certainly need to know the behaviour of known excipients towards all drugs, and the influences other than time which are the cause of the insolubility of pills. Medical evidence shows conclusively that such pills are dangerous because they accumulate in the bowels, and create or add to obstructions which may be fatal. For this reason, apart from the mere professional aspects of the case, pharmacists would do well to pay more attention to the subject.

APPRENTICESHIP QUESTIONS.

THE following cases have been submitted:—

Country Chemist (39/37) writes:—"Being a young man short for a few weeks, we had to work one night a week after the usual time, 8 P.M., to prepare for the market; but in Easter week, after having the whole of Good Friday and Easter Monday holiday, my apprentice positively refused to work after 8 o'clock on the night before market-day. Was he justified in declining to stay in after working 7.45 A.M. to 8 P.M., no dinner-hour being allowed, except the time occupied in eating it? The indenture is an ordinary one, and the hours are same as when he came on trial."

X. Y. Z. (39/30) (this is a London suburban business) says:—"I am taking an apprentice (outdoor, term four years). Having no previous experience in these matters, I should like to know what you consider the hours should be, also what duties, if any, on Sundays (that is, attendance at the business)."

No indentures or agreement can provide for every possible case of dispute which may arise between a master and his apprentice; but we are of opinion that the indenture of a chemist's apprentice ought to specify any claim which the master is likely to put forward for the service of his apprentice on Sundays and after ordinary shop hours. As a rule, the apprentice is not of much use for such service during the first year or two of his time, and he is not unlikely to think it hard when he is called upon to sacrifice some of his theretofore leisure when he gets more useful. The apprentice who had worked from 7.45 A.M. to 8 P.M., with only just sufficient time to eat his meals during the time, had done, it seems to us, quite a fair day's work—too

much, indeed, for an ideal state of society. If the occasion was very exceptional, it would have been wise and graceful on his part to have shown himself obliging; but if his extra service was claimed as a right, we are inclined to think the apprentice was justified in refusing it.

It should be remembered that it is an offence against the law to keep anyone under 18 at work for more than 74 hours in one week. This means that, in the opinion of the legislature, 74 hours is the extreme limit which any young person ought to be permitted to work, however willing he or she may be to do so; and we should say that apart from the law no custom could justify a master in keeping an apprentice at work to a greater extent than that. The primary object of apprenticeship is not the provision of cheap labour; it is instruction in business. This includes naturally the cultivation of the business habits necessary in the business to be taught, and to some degree, we suppose, Sunday labour must be included as a part of the programme where chemists' apprentices are concerned. But to the young apprentice a very small proportion of Sunday and night duty, if any, should suffice; and the older one ought not to be expected to do all that an assistant would do in this direction.

GOVERNMENT CONTRACT.

CONSEQUENT on a question asked in the House of Commons a year ago by Mr. James Rowlands, M.P., the Secretary of State for War undertook to inquire into and consider the comparative advantages of secrecy and publicity in regard to army and navy contracts. It was admitted that nearly every other country the amounts for which goods are supplied to the Government are made public, and also that the British system of secrecy in regard to these matters had been practised primarily in the interests of the manufacturers tendering. The inquiry into this subject was entrusted to Mr. E. C. Nepean, the director of army contracts and Mr. John Collett, director of navy contracts, jointly; and their report, which has been published lately, indicates a very careful and intelligent sifting of the question. Between the two departments letters were addressed to 70 Chambers of Commerce, and to 103 manufacturing firms. The question asked was whether it was considered that the publication of the prices at which orders are placed would be to the advantage of the service, of contractors, and of the community generally. Forty-eight Chambers of Commerce replied; some of them had taken great trouble to ascertain the general opinion of manufacturers in their several localities while in other cases few or no grounds were given for the conclusions arrived at. Of the 48 replies, 24 are on the side of publicity, 20 against it, and 4 are unable to come to a decision. But it would seem that the 20 who oppose publicity represent by far the greater division of the manufacturing world. They include the Chambers of Birmingham, Glasgow, Leeds, Manchester, Nottingham, Sheffield, and Walsall, and are apparently those which most carefully investigated the matter. Of the 103 individual firms addressed 102 replied, and letters were also received from 10 firms not addressed. Of these 112 opinions no less than 101 are in favour of secrecy. The principal reasons given for this conclusion are, 1) That manufacturers, for various reasons, such, for example, as a desire to keep their workmen employed, the maintenance of orders, security against bad debts, and prestige in holding Government contracts, constantly quote to the Government departments much lower rates than those quoted by private customers, who would learn the Government rate and demand them. To such an extent is this felt that many firms would cease to do business with the Government if he pub-

lification of prices were permitted, or be compelled to raise their prices; (2) that the publication of prices would enable cutting firms to put in a price just below what was last accepted, and one probably which is unremunerative for reasons given before. They would recoup themselves, or try to do it, by inferiority of quality; (3) that contractors would find greater difficulty in buying the raw material, and in dealing with their workpeople; (4) that occasionally the department might be compelled to accept a tender which was not the lowest. It would have to justify its action to disappointed competitors, to say what it thought about their character and less correspondence would arise. The effect would be that those persons who have to adjudicate upon tenders would be tempted to neglect every consideration excepting price; (5) that the practice of publishing prices in foreign countries throws the business into the hands of third or fourth rate houses and agents.

The likely reasons given in favour of publication are, (1) that it is the only means of preventing the too general suspicion of unfair dealing now prevalent; (2) that it would be a good thing for the workmen; (3) that it would be an inducement to manufacturers to tender who do not do so at present from ignorance of the requirements; and (4) that it would be a better guide than to regular contractors than specifications, patterns &c.

It is not surprising that with this general consensus of opinion in favour of their present practice the directors of contracts should report strongly in favour of its continuance. They argue with much force that while in the abstract it may be right and proper that the tax-paying community at large should see how their money is spent, such a feeling is prompted partly by mere idle curiosity, and partly by a general love of open dealing, but leaves out of consideration both the wisdom and the economy of the proposal. While we agree, that on this point the officials have fairly proved their case, we cannot think, from general knowledge of the manner in which tenders are obtained, that sufficient care is taken in all cases to give and to get the benefit of such competition among manufacturing firms as would ensure to the State the best terms and the best goods.

D. H. The Registrar General's Annual Summary of Births, Deaths, and Causes of Death in 1887 affords many statistics of much interest. The R. S. year reported upon appears to have been on the whole a very healthy one. The death-rate for London in 1887 was only 19.6, the lowest proportion on record since the commencement of the statistics in 1840. What is particularly important to observe is that this improvement is not a sudden and unaccountable fluctuation, but is the effect of a steady progress in sanitary conditions. In 1840 the London death-rate stood at 25.0 per thousand, and in the decade 1841-50 it averaged 24.8. In the next ten years it fell to 23.7, but in the next return to 24.4. In 1871-80 it was reduced to 22.5, and the years for reported on in this decade have shown a continuous improvement, nearly every year marking an advance. The following is the record:—1881, 21.3; 1882, 21.3; 1883, 5; 1884, 20.4; 1885, 19.8; 1886, 19.9; 1887, 19.6. The rate for all England and Wales in 1887 was 18.78. Among the twenty-eight largest towns in England and Wales London stands ninth, being preceded in the order named by Brighton (17.38), Derby, Norwich, Nottingham, Hull, Portsmouth, Leicester, and Sunderland. After London come Birmingham, Bristol, Bradford, Wolverhampton, Birkenhead, Leeds, Plymouth, Halifax, Sheffield, Bolton, Cardiff, Salford, Huddersfield, Liverpool, Oldham, Newcastle, Blackburn, Preston, and Manchester, the last named with a (corrected) rate of 31.95. Edinburgh, it may be mentioned, had a death-rate in 1887 of 19.8, Glasgow one of 23.2, while Dublin scored 30.6—a figure beaten only in capital cities by Madras 40.3; Buda-Pesth, 32; Cairo, 45.7; and Alexandria, 37.8.

Australian The extraordinary suggestion made by Pasteur for the extermination of rabbits in Australia, viz. by the introduction of chicken cholera into that colony, was the subject of a paper and animated discussion at the Royal Society, Melbourne, on the evening of March 8. The paper was on the proposed introduction of new diseases into Australia, and was contributed by Dr. Henry C. Wigg, who at the outset said that M. Pasteur's remedy for the rabbit pest was uncertain and contained elements of danger. He pointed out more especially that Pasteur's experiments with the chicken cholera microbe were made under conditions as to climate, &c., totally different from the conditions which obtain in Australia, so that they were not trustworthy. Diseases are generally most virulent and spread with the greatest rapidity on virgin soil, afterwards mitigating, as in the case of Fiji with regard to measles. When introduced there that disease spread with appalling rapidity, and was singularly virulent, no fewer than 40,000 persons dying from its effects. Now it is not more virulent in Fiji than in England. In concluding, he gave it as his opinion that the Government of Victoria ought to take prompt steps to make the introduction of the microbes a highly penal offence. In the course of the discussion Mr. C. R. Blackett, Government analyst, suggested that it would be best to compel M. Pasteur's assistants, who were bringing out the microbes, to make their experiments on one of the islands in Bass's Straits, where they should be kept in strict quarantine. Mr. J. Bosisto, M.L.A., said that rabbit destruction was proceeding satisfactorily in the colony; from thousands the rabbits had been reduced to hundreds. There was no need to introduce the chicken cholera microbes to destroy the rabbits as long as bisulphide of carbon and arsenic were acting effectually. Other speakers were equally strongly opposed to the proposal, and ultimately a motion, which was seconded by Professor Jackson, was adopted, in which the Australian Governments were advised to refuse their permission to introduce any form of disease for the purpose of checking the rabbit plague, until the whole question has been fully considered.

**

Advertising One of this fraternity, and one, it may be Agents. remarked, who acts for a good many medicine advertisers, writes to us this week a long letter urging us to advertise in a work which he compiles professedly for the guidance of advertisers. He says, "If you are disposed to favour us with an order for an extended entry we will guarantee an adequate return in *contra* business." This gentleman professes to give to his advertising clients the benefit of his experience and judgment in advising them how and where to advertise. Judging from our ledger he does not think much of THE CHEMIST AND DRUGGIST at present; but it appears we can very readily convert him to a better opinion of us by "an extended entry." A ten or fifteen per cent. commission would probably have a similar effect; but we are not disposed to offer either form of bribery. Our prices are what we say they are in our tariff, and we never vary them either to agents or principals. By the latter this case is worth noting. It is they, let them bear in mind, who would have to pay the *contra* account so obligingly offered to us in return for "an extended entry." If for any reason chemists find it desirable to put their advertising, be it small or great, through an agent, this little circumstance may induce them to adopt the wise precaution of retaining in their own hands the selection of the journals to be patronised.

THE ANILINE TREATMENT OF PHthisis consists of frequent administration of acetanilide (10-grain doses four or five times a day) and the inhalation of pure aniline mixed with an essential oil such as anise, eucalyptus, or peppermint oil. A suitable mixture is, aniline 5*ij*, eucalyptus oil 5*vij*, mix. At the same time ointment of iodine or iodoform with eucalyptus oil is rubbed into the chest. The acetanilide breaks up in the system, aniline being one of the products. Although cyanosis and other disagreeable symptoms supervene, the decomposition of the acetanilide is apparently part of the cure, so also is careful attention to dietary. In the *Lancet* of March 24 there are some notes on an indisputable case of phthisis of four years' standing, which recovered under this treatment.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollect that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., April 19

UNFORTUNATELY we cannot report any improvement in the position of the drug and chemical markets since last week, but, on the contrary, lower values must be recorded for some important chemicals, notably quinine and quicksilver. Tartaric acid is also easier, but there has been some speculation in citric acid, resulting in higher prices. At the drysalteries sales on Tuesday shellac suffered a further decline of about 2s. per cwt. for second orange, and the indigo sales held this week have also resulted in lower prices for many varieties. At the spice sales cloves improved decidedly, and so did nutmegs and mace, in which an active trade has since been done privately, but all other spices were easier. Today's drug sales included a very large quantity of articles, but were got through with commendable despatch, although a languid tone reigned throughout. Cardamoms sold very well and occasionally at a good advance, closing very steady. Vanilla brought full prices, and ordinary senna also sold well. A parcel of Zanzibar aloes realised full rates. Of other drugs, cascara sagrada and guinea grains are again higher in price, saffron advances steadily, and peppermint oil (HIGH) is said to be in better request. But the list of drugs which are lower in value since the last sales is a rather longer one. It includes ipecacuanha, insect-flowers, musk (slightly lower), gum benjamin, kino, gamboge, ergot of rye, orange-peel, senega root, and Jamaica sarsaparilla; China soy and cod-liver oil are also weak; mercurials follow quicksilver; and some ylang-ylang oil of one of the best-known brands sold at a price which, if the brand is genuine, is certainly unprecedentedly low.

ACID (CITRIC).—An active trade has been done in *Citric acid*, probably more in anticipation of an improved consumption as the season advances than because of a genuine demand. The movement certainly appears so far entirely of a speculative character. At the close sellers ask 1s. 7½d. per lb. on the spot, but there do not appear to be any buyers at that figure, and the highest price which we understand to have been actually paid is 1s. 7½d. for April delivery. For forward delivery slightly higher rates are asked than on the spot. From Messina the quotations for price are higher.

ACID (TARTARIC). quiet and tending lower, at 1s. 5½d. to 1s. 5½d. per lb. for *foreign*, and about 1s. 6½d. per lb. for *English* brands.

ALOES.—*Cape* very quiet, and barely saleable at the recent quotations. Only 49 cases were offered at the auctions, and a few of these changed hands at 19s. to 20s. per cwt. A very large quantity of *Curaçao* aloes in gourds came up for sale, the total quantity numbering over 1,000 packages, but it should be said that the bulk consisted of very small gourds. Fair dark capey gourds sold at 35s. per cwt., ordinary capey in boxes at 25s., red streaked brown at 38s. 6d. per cwt. *East Indian* aloes are also very plentiful, and it is clear that our actual stock is considerably in excess of the recent official returns. About 280 kegs Socotrine were offered for sale, but only about 50 sold at 6s. 10s. per cwt. for fair hard, rather dark; and from 40s. to 70s. per cwt. for very common to medium drossy. A shipment of fine Zanzibar aloes sold, with good competition, at very full rates; fine hard hepatic at 32s. 8d.; soft treacly ditto at 6s. 15s.; soft red to ordinary dark from 5s. 10s. down to 38s. per cwt.

ANISE.—Several parcels of *Chinese* star anise are being offered again, but full prices are demanded, viz., 85s. per cwt. Of Japanese star anise four cases were catalogued, but bought in without mention of price. *Russian* anise remains

very cheap; a parcel was bought in to-day at 20s. 1cwt. As always, it was very dusty and mixed with foreign seed.

ANNATTO.—The demand is extremely slack. *Coco* seed in good supply, but barely saleable at the last figure—2½d. to 3d. per lb., according to quality. *Brazilian* root without inquiry; a rather dry and dark parcel was bought in at 1s. 2d. per lb.

ARECA NUTS.—At to-day's auctions 70 bags from Colombo sold at 10s. per cwt. for the entire parcel.

BALSAMS.—*Copaiba* remains extremely scarce, and there is some prospect that the price will be raised still further. Speculators appear to think that the article is in a very sound position; 2s. 3d. per lb. is still the quotation for gilt bright balsam. *Peru*, very quiet, 4s. 3d. to 4s. 6d. per lb. big asked, according to quality. *Tolu* neglected. To-day sixteen cases were bought in at 1s. 4d. to 1s. 5d. per lb.

BUCHU.—Several parcels were offered to-day, all one of these, consisting of 20 bales (together 54 cwts.) still pretty busily at the recent reduction, 2½d. to 2½d. per lb. being accepted for fair greenish but stalky round leaves.

CALUMBA.—Although our stock is a very heavy one, inferior qualities being especially well represented, importers do not seem willing to submit to further reductions. An offer of 40s. was declined for a parcel of good yellow washed root, which was bought in at 45s. per cwt. Some fair red root, all sizes, partly wormy, sold at 22s., the remainder of the parcel being bought in at 25s. per cwt. Forty-eight bales very dark wormy root found a buyer at 4s. per cwt.

CAMPHOR.—We have heard it stated that reports from the Eastern market speak of higher prices for crude, but there is nothing definite in this report. No change can be reported in refined camphor.

CANELLA ALBA.—A parcel of 45 bales very all and broken quill, rather dark in colour, was shown, and bought in at 25s. per cwt., although it was said that 21s. per lb. would be accepted.

CANNABIS INDICA.—One bag very good bright green, but dusty tops, not very stalky, but containing a good deal of seed, is offered at 8d. per lb., a penny less being refused. Ordinary brown tops sold "without reserve" at 1½d. per lb.

CANTHARIDES.—*Chinese* flies are neglected, all 1s. 5d. per lb. was suggested to-day for a parcel of 6 cases, but in view of the recent decline this price is probably not obtainable. Three cases good bright, but rather broken *Russian* cantharides sold without reserve at 4s. 9d. per lb.

CARDAMOMS.—A very heavy supply was offered to-day's auctions, including 360 packages, mostly of Ceylon growth, and of Mysore and Malabar character. By far the greater part of the supply was sold with good competition at most irregular prices: opening fairly steady, then declining, for certain lots, to 3d. or 4d. below the valuations, finally selling at a sharp advance, as much as 6d. to 7d. per lb. beyond the estimate being paid for certain lots. The following prices were realised:—*Ceylon Malabar*—good pale round to rather dull coated, 2s. to 2s. 1d.; medium 1d. but slightly specky, 1s. 11d.; medium, pale and specky, 1s. 10d.; pale round, 1s. 3d. to 1s. 4d.; very small yellow to medium, pale but light, 8d. to 1s. 1d. per lb. *Mysore*—very pale smooth long, 2s. 8d.; fine medium ditto, 2s. 3d.; good medium long, 2s. 1d.; fine smooth pale bleached, 1s. 8d. (a very cheap lot); small to medium pale long, 1s. 7d. to 1s. 8d.; dull coated to fair, 1s. 4d. to 1s. 6d.; all sizes, partly brown in colour, specky and split, 1s. 1d. to 1s. 3d. per lb. *Madras*, fair round smooth, rather uneven in size, and 1s. 10d. cases were offered in a single lot and bought in at 2s. 9d. per lb., only 1s. 9d. per lb. being offered; while for another parcel a bid of 2s. 2d. per lb. was declined. *Aleppo*—fair medium brown sold at 10½d.; dull to specky, 7d. to 9½d. per lb. *True Malabar*—ordinary brown shelly, 5s. to 5½d. per lb. *Wild Ceylon*, 1s. 3d. to 1s. 5d. *Seed*, 1s. 3d. to 1s. 5d. per lb.

CASCARA SAGRADA.—Again dearer, although it is rumoured that the recent advance has had the effect of bringing forward supplies to the trading centre on the Pacific coast. The last price paid in London is 60s. per cwt., and holders now want 70s. per cwt. for what remain-

CARILLA remains dear and scarce in good qualities. Two parcels placed in auction were partly sold at full rates, 31s. per cwt. for small thin brown quill, very broken, and 24s. 27s. for damaged. An offer of 22s. per cwt. for siftings was not accepted, the owner holding firmly at 23s. per cwt.

CASIA FISTULA neglected, but only ordinary lean and worn pods are offered; 57 of these from Java sold without reserve at 3s. 6d. per cwt.; another lot was bought in at 10s. per cwt.

CINNAMOMILES.—There is no change in price, business being montarily slack; but if any demand were to make itself felt advance would be pretty sure to follow.

CHONOA.—Large shipments arrived from Ceylon at the end last week, and the exports from the island seem again to be somewhat on the increase. At to-day's auctions nearly the sole of the cinchonas offered were of South American origin and the bulk belonged to the varieties for which fancy price quite out of proportion to alkaloidal value, are paid. A newly-arrived parcel of flat yellow *Calisaya* bark sold 2s. 2d. per lb. for fine bright and partly very bold but somewhat papery bark, rougher and softer lots realising 1s. 1d., and damages from 1s. 3d. to 1s. 9d. per lb. Twelve bales cultivated Bolivian *Calisaya*, in flat but thin and rather unsightly pieces, were bought in at 2s. 2d. per lb. Another parcel which did not look like genuine *Calisaya*, is said to be held 1s. 9d. to 2s. per lb. Six bales *Maracaibo* (imported via Fire) sold at 7d. to 9d. per lb. for sound, and 5d. to 6d. per lb. for damaged bark. Small dull quilly damaged red bark (imported via Hamburg) sold at 9d. per lb.; *Losa*, according to quality, at 1s. 6d. to 2s. 1d.; and *Huanoco* in quill 11d. to 1s. 4d. per lb.

COLEAVES.—Several parcels were offered, but only 11 bales the *Trujillo* character sold at 3d. to 6d. per lb. for broken and ordinary quality. A single bale bright green but broken leaf is held at 1s. 6d. per lb. nominally. Fair *Huanoco* leave were bought in at 1s. 1d. per lb. nominally, while for a very common lot, though offered "without reserve," no bid at all could be obtained. The parcel of ordinary *Java* leave offered at a recent auction was again bought in.

COINE.—There is not much doing at present. German brandy offered from 9½d. per gramme in vials upwards.

COURANGO.—Two lots were offered, but taken out or bought in at 2s. per lb. nominally, no attention being given to the article.

CUBBS.—A fair demand exists, and the last quotations are well maintained. Three bags genuine, but very small berries said to contain 20 per cent. of stalk, are priced at 20s. per cwt. Another lot of the same kind, but minus the stalks sold at the rate of 23s. 15s. per cwt., the stalks alone subsequently bringing 65s. per cwt. Two bags rather bold brown berries (imported via New York) also sold, at 17s. 10s. per cwt.

CUM SEED.—135 packages *Mogadore* sold at 37s. 6d. per cwt.

DRON'S BLOOD in steady demand at unaltered rates, 6 cases good bright red slightly seedy lump selling at 7l. 5s. per cwt., while for very ordinary bricky cake 65s. per cwt. was suggested. Fair dark *Socotra* tears are held at 80s. per cwt.; strings at 45s. per cwt.

EROT OF RYE.—Prices, notwithstanding the alleged scarcity, are declining rather than improving, and in to-day's sale 1s. per lb. was accepted for fair clean *Russian* ergot, while 5d. per lb. was solicited for sound, and 1s. per lb. for weak Spanish.

GALOGE.—Several cases were sold to-day at lower prices, owner evidently fearing that the supplies which keep arriving may further depress the market. Very good orange pipe, loose but broken, sold at 11s. 5s. per cwt.; slightly broken ditto, at 11s.; cakey and drossy, but fair coloured pipe, 9l. 15s. to 9l. 17s. 6d.; and ordinary dull coloured drossy 9l. 10s. per cwt.

GLYCERINE.—The price of crude glycerine has again advanced, and distillers are firm, although they have not made any change in their quotations as yet. Up to 75s. per ton is asked for double distilled, s.g. 1.260.

GUARANA very dull, and probably tending lower. Nominally 4s. 3d. per lb. is demanded for fair sausage, but owners would doubtless be glad to come to terms.

GUM AMMONIACUM.—Three cases fair drop, but dark and somewhat seedy, were bought in at 32s. per cwt.

GUM ARABIC.—Only a few parcels were offered to day, and sold at pretty high prices, 7l. 2s. 6d. per cwt. for *Cape gum*, partly good amber drop, but mixed with dust. A lot of gum, having the appearance of Egyptian Amrad, was bought in at 5l. 15s. *Australian* gum fetched from 76s. to 80s. for small loose dusty drop, and 70s. for a darker lot. *Aden* sorts sold at 8l. for fair pale tears, while good glossy and frosty olibanum scented sorts were bought in at 7l. per cwt. The crop of *Senegal* gum is now arriving at Bordeaux, and it is said that although the crop is late this season it is thought that there will be a satisfactory yield. The opinion prevails that as the bulk of the crop is placed on the market values may give way to some extent, but we think it would be a risky experiment to speculate on a possible fall.

GUM BENJAMIN.—There was a large quantity of gums of various descriptions offered for sale to-day, and prices declined considerably, several lots being offered "without reserve." Arrivals are taking place on a rather large scale, 186 packages being imported this week. *Siam* gum, of which some very fine pale loose almonds were offered, is quite neglected. *Sumatra* sold cheaply at 9l. 2s. 6d. for fine pale almondy seconds, apparently somewhat old, 8l. 10s. for good grey almondy seconds, a little brown in the corners, and 8l. to 8l. 5s. for a very similar lot, all these parcels being characterised by their excellent flavour. Good red bordered thirds in small boxes are offered at 5l. 5s. per cwt., or 5l. per cwt. for the lot of 13 boxes. A good supply of fine orange *Palembang* gum was bought in without mention of price.

GUM ELEMI.—Only three casks of fine flavour, but very dirty yellow colour, were shown, and bought in at 38s. per cwt.

GUM EUPHORBIUM.—The 61 packages which were offered at to-day's auctions showed rather an improvement upon the last lots as regards quality, but prices remain very low. For fairly good pale drop, rather dusty, 15s. was refused, while 14s. per cwt. would buy a somewhat less desirable parcel.

GUM KINO declined to-day to the lowest price which has probably ever been known, 30s. per cwt. being accepted for good *Cochin*.

GUM MYRRH in good supply; but the market is not at all lively, and nothing was sold. For good pale selected gum 5l. 15s. was refused. Sorts were bought in at 95s., good coarse siftings at 90s., good pickings at 55s., and small bright siftings at 50s. per cwt.

GUINEA GRAINS still rising. At the auctions 28 bags stony seed sold at 25s. to 26s.; another lot was bought in at 33s. per cwt.

HOLARRHENA ANTIDYSENTIRICA.—One bag of this seed, of which we made mention in a recent report, was again offered and bought in.

HONEY.—We are now receiving rather heavy consignments, principally from Jamaica, but the last Chilian steamer also brought 336 kegs. Prices, nevertheless, keep up pretty well, and at the auctions to-day 36s. was refused for 7 cases fine pale candied Jamaica (like Chilian), which is limited at 40s. Bright brown liquid Jamaica sold at 30s.; darker ditto, at 24s. to 27s. 6d.; and one barrel from Cuba of peculiar flavour and light brown colour, at 25s. per cwt.

INSECT FLOWERS are again quoted somewhat lower from Trieste, the last prices being 180s. for open, 188s. for half-open, and 198s. per cwt. for closed flowers, "c.i.f." terms.

IODINE.—The price remains unaltered at 9d. per oz. for crude.

IPECACUANHA.—Although a rather heavy shipment has arrived last week (consisting of 87 bales), the market did not, at to-day's auctions, give way to the extent anticipated in many quarters, and prices may be quoted at 8d. to 9d. below the highest figures privately paid before the arrival of the recent reinforcements. Of 28 packages offered, 15 were sold at 6s. 8d. to 6s. 9d. for good stout annulated, and 6s. 3d. to

6s. 6d. for rather thin but sound ditto, damages bringing from 6s. to 6s. 5d. per lb., and 7s. 4d. being refused for selected root, which is held at 7s. 6d. per lb.

KOLA NUTS.—There does not seem to be any further demand just at present, and several packages African and West Indian seeds, all more or less mouldy and badly cured, were bought in, though mostly offered "without reserve."

MATICO.—Of 10 bags offered in sale, 9 sold at 8d. to 9d. per lb., for small to bold broken leaves. One bale of ordinary character was bought in nominally at 6d. per lb.

MERCURIALS unaltered, but tending lower in sympathy with quicksilver.

MUSK.—A few caddies sold at easier rates than prevailed at the last auctions, but by far the greater part of the supply remained unsold. *Tonquin*—first pile, medium to bold fairly-trimmed old-fashioned pods, good shape, thin blue skin and underskin, sold at 90s. per oz.; 5 caddies small to medium rather damp pods, part usual skin, rather hard and skinny pods, at 86s. to 86s. 6d. per oz.; ordinary old-fashioned damp well-trimmed, pile 1, 77s.; fine well-yielding third pile, adulterated, 55s.; common damp dark fair shaped but very false packed third pile, at 24s. Two caddies good *German* pods brought 49s.; *Cabardine*—fine bold trimmed Russian pods were bought in at 45s.; ordinary skinny and juicy, at 17s. *Tonquin trimmings* sold at 1s. to 1s. 3d. per oz.

NUX VOMICA.—A parcel of 181 bags, of recent arrival, was offered to-day. The outward appearance was very inferior, and only 4 bags fair Bombay, small to medium, tolerably pale colour, and silky, sold at 11s. 6d. per cwt. For the remainder, a dark and unsightly lot, 6s. 6d. per cwt. was refused.

OIL (CASTOR).—No alteration. Fine first *Caleutta*, 4d. per lb.; yellow *Cocoanada*, 2 $\frac{9}{10}$ d. per lb.

OIL (COD-LIVER).—There is no alteration to report, and prices remain very low, although we do not hear that much actual trade is done. We are informed that, thus far, the Finnmarken fishing is a failure, but in any case this is not of any great importance as compared to the Lofoden fishing.

OILS (ESSENTIAL).—Very little is passing in this market. *Staranise* remains firm, and it is doubtful whether 6s. 2d. per lb. would buy on the spot. *Cassia* unaltered, and without trade. *Cinnamon* oil steady at 1s. 3d. to 1s. 9d. for fair to good oil. *Citronella* dull at 1 $\frac{5}{16}$ d. per oz. for native brands. *Cajaput* not in much demand. A parcel was bought in to-day at 3s. 6d. per bottle. *Lemongrass* steady at 1 $\frac{1}{2}$ d. per oz.; to-day 1 $\frac{1}{2}$ d. was refused for 27 cases from Cochin. *Nutmeg* oil bought in at 3 $\frac{1}{2}$ d. per oz. *Peppermint* firmer for H.G.H., which is not obtainable under 10s. 6d. per lb. on the spot. Cocking's Japanese oil is quoted at 5s. 3d. per lb. *Menthol crystals* are quoted at 7s. per lb. for Cocking's, other brands offering below that figure. *Otto of rose* is exceedingly firm at the last quotations. Of *Ylang-ylang*, 6 bottles, 11 $\frac{1}{2}$ oz. each, "Sartorius" brand, sold to-day without reserve at 5s. to 5s. 9d. per oz., which, if the quality is genuine, is probably the lowest price on record for this brand; another lot of ordinary ylang sold at from 2s. 3d. to 2s. 6d. per oz.

OPIUM.—At Smyrna there has been a pretty brisk business at easier prices, and the stock actually there at the close of last month was estimated at about 850 to 900 cases, mostly tale quale. Fine Yerli opium of the last crop is scarce. The latest reports say that rain would be welcome in the growing districts both of Salonica and As'a Minor. As regards the coming crop the usual contradictory rumours prevail. From Salonica it is reported that in that district the crops had suffered much from frost, but since February fresh sowings have been made on a large scale, and if all goes well it is thought that as many as 1,000 cases of opium may be obtained from that quarter. In Asia Minor also the aspect of the growing crops is very favourable, and sanguine operators already talk of a possible yield of from 12,000 to 15,000 cases, while even the pessimists admit that the figure of 8,000 will probably be exceeded. It is said that all crops in Asia Minor look better than has been the case for a generation at the present period of the year.

ORANGE PEEL.—Our market remains burdened with a far too heavy supply, and only very low prices will tempt buyers. Fine bright machine-cut peel sold to-day at 1s. 1d. per lb.

PATCHOULY LEAVES.—No less than 130 bales mostly of recent import, were offered for sale. There was not a single bale among the parcel of really fine quality, all with the exception of 8 bales dusty, discoloured and stony leaves, which sold at 3d. for sound and 1 $\frac{1}{2}$ d. to 2 $\frac{1}{2}$ d. per lb. for damaged, the whole was bought in at nominal rates. Many lots were very stalky and sandy or mixed with spurious leaves.

QUICKSILVER again lower. To-day the importers sold 3,000 bottles at 7l., and this sale was followed by a brisk trade in second-hand quicksilver at the decline.

QUININE has again declined, and *German* was sold first hand for June-July delivery, at 1s. 6d. per oz. or B & S brand in tins. It is also said that *Pelletier's* quinine in bulk has been sold at 1s. 6 $\frac{1}{2}$ d. per oz. The makers, at least the German ones, are apparently supporting the bear movement, which we are inclined to believe is the strongest at present. A fair business is reported this week.

RHUBARB.—Not in much demand to-day. Of the 96 cases offered only a few were sold, not enough to establish any alteration in the quotations. *Shensi*, round, small but good bright root of fair fracture, sold at 1s. 11d. per lb. or ditto, partly grey in fracture, at 1s. 7d. per lb.; flat, good appearance, but part dark in fracture, at 1s. 4d. per lb.; and orange coated, of good colour, but slightly wormy, at 1s. medium pale rough coated, grey fracture, at 8d. per lb. Dried root, small, rather dull, flat, sold at 8 $\frac{1}{2}$ d. per lb.

SAFFRON.—Steadily advancing in Spain. Good ordinary to finest *Valencia* is held at from 47s. to 56s. per lb.

SARSAPARILLA.—The assortment was not a very good one, but prices had a downward tendency for *Jamaica* root, which sold at 1s. 8d. for sound, and 1s. 3d. to 1s. 7d. for damaged grey. *Red native* *Jamaica* fetched 1s. 3d. per lb., and 12 bales spurious *Guayaquil*, damaged, from Cartagena, 1s. per lb.

SENEGA.—The price does not keep up so well, notwithstanding some holders are not disposed to sell good pale root under 1s. 11d. per lb., 1s. 9d. per lb. was accepted for 3 bales fairly good *Senega* at to-day's sales.

SENNA.—The large supply of 373 bales offered to-day's auctions consisted mainly of ordinary *Tinneve* leaves, which realised very full prices, while the few lots medium and fair quality shown also sold well. Common false packed and discoloured leaves brought 1d. to 2d. per lb.; dull yellow specky and small, 1d. to 1 $\frac{1}{2}$ d.; ordinary small yellowish damaged to fair greenish, 2d. to 2 $\frac{1}{2}$ d.; medium to good medium green, 3d. to 4 $\frac{1}{2}$ d. per lb. Fresh pads continue to arrive.

SOY neglected, with declining tendency; 1s. 6d. per gallon is quoted for China.

TEA (CHINA).—There is a little more life in the China market this week, and heavy sales; over 20,000 caskets, on Tuesday, sold at steady rates. A large number of useful low-priced Soomoo sold at steady rates from 4 $\frac{1}{2}$ d. to 5d., and common Kaisows and Shantams at 3 $\frac{1}{2}$ d. per lb., though very common Kaisows, in public sale on Wednesday, so as low as 3 $\frac{1}{2}$ d. per lb. Scented capers are selling steadily for all better grades, there being little really good tea offered, and olive S. capers over 10d. per lb. are very scarce. Common new S. capers, however, sold as low as 4 $\frac{1}{2}$ d. and 4 $\frac{1}{2}$ d. per lb., and Canton S. O. Pekoes from 6 $\frac{1}{2}$ d. to 9d. showed very good value. Green teas, unaltered, with moderate sales. Assams very firm, sales going dearer and dearer day after day, and teas for price fetching very strained prices. Common broken teas in sale bring 6 $\frac{1}{2}$ d. per lb.; common Sechongs, 8 $\frac{1}{2}$ d. to 9d.; though Pekoes and broken Pekoes do not show by any means corresponding firmness. It is, however, likely to come, and useful Pekoes from 10d. to 1s. at present rates are good stock. Ceylons, in sympathy with Assams, a firmer, but do not yet show an equivalent rise. Teas under 11d. must, however, be quoted 1 $\frac{1}{2}$ d. to 2 $\frac{1}{2}$ d. per lb. in some cases, dearer, but we still think these grades must advance further before long, and Ceylons in sale for this week are much less in quantity than those for last week.

VANILLA.—A report is current that a considerable shipment has been lost in a steamer between Marseilles and London, and it is also said that the coming crop will be a

very all one. Nevertheless, prices remain very low, altho' some slight improvement was apparent to-day. The 9 ins offered to-day were nearly all sold at 19s. 6d. for good, to 8½ inch, 14s. to 17s. for fair 7 to 8 inch, and from 4s. to 7s. for foxy to good beans of various lengths.

WA BEES'.—*Jamaica* wax is still in good demand and sells a steady rates, 5l. 12s. 6d. to 5l. 15s. for fine orange and yellow, 5l. 7s. 6d. for good orange, and 5l. 5s. to 5l. for red to dark brown. For an exceptionally good lot 6l. 5s. is asked.

CHEMICALS IN THE NORTH OF ENGLAND.

THE has been somewhat more activity in the chemical market as the spring ports are opening, and shipments held back for some time are now being pushed forward. The tone generally is better, and for some articles prices are much higher.

SOD SALTS.—*Ash* meets with a very steady inquiry at 1d. to 1d. per degree. *Caustic soda* has attracted attention, and some considerable quantity has been sold at late rates, resulting in a decided advance, the market closing—*Cream*, 60 per cent., at 5l. 15s. per ton; *white*, 60 per cent., at 5l. 17s. d. to 6l.; *ditto*, 70 per cent., at 6l. 17s. 6d. to 7l.

Borax has been in request, and the market is very steady both spot and forward. Several arrivals of French and Italian borax have taken place, but these have been all absorbed, and makers are very firm at 30s. per ton, because the English shipments of Californian borax to New York continue, and will do so until the price in England is on a parity with that at San Francisco; but the exporters have still some margin.

CHLORATE OF POTASH continues depressed and neglected, and the sharp decline is a matter of unpleasant surprise to operators for the rise. Whilst very scarce nearly all last year, it is now in ample supply, and it is a question whether the manufacture of oxygen by the peroxide of barium process may not materially affect this chemical, chlorate of potash having been previously used to a very large extent. The closing quotations are 5½d. to 5¾d. per lb.

ALUM has met with more attention, and orders are coming in somewhat more freely. Prices are firm at 4l. 17s. 6d. for barrel and 4l. 15s. for larger packages. The tendency is upward. A form of alumina in combination with iron is growing into a large and increasing demand for the purification of sewage and impure waters; this form is called alumimetic, and the results have been found so complete and satisfactory that it is now being employed upon a large scale. Quotations f.o.b. Liverpool range from 2l. 18s. 9d. for loose lbs to 3l. 5s. per ton for packages.

ACID are all somewhat firmer. *Tartaric* in better request at 1s. 6d. per lb. *Citric* has been active, having at last recovered and advanced to 1s. 7d. *Oxalic* is more inquired for at 1d. *Boracic* quiet but steady at 27s. per cwt. It is reported that the Italians, not satisfied with converting part of their acid into borax, now propose to refine it, and a small sample is in the market, the value of which ranges from 5s. to 65s. per ton. This may become an important article. Refined boracic acid is being more and more largely used for medicinal and domestic purposes.

THE DUTCH MARKET.

AMSTERDAM, April 18.

CHINA.—The next auctions here will be held on May 3 and 4, and will consist of 449 cases and 1,276 bales Java bark, and 8 bales Ceylon bark, subdivided as follows:—*Succirubra*: Quills, 49 cases; broken quills and chips, 16 cases; 132 bales; root, 1 case; 55 bales. *C. Schuhkraft*: Quills, 11 cases; broken quills and chips, 48 bales; root, 30 bales. *Lederiana*: Quills, 12 cases; 14 bales; broken quills and chips, 87 cases; 702 lbs; root, 196 bales. *Officinalis*: Broken quills and chips, 3 bales. *Hybrid*: Quills, 69 cases; broken quills and chips; 3 bales. Ceylon, broken quills and chips, 8 bales, weighing together about 130 tons, of which about 76½ tons are manufacturers' bark, containing the equivalent of about 5,900 lbs., or about 3½ per cent. sulphate of quinine, and about 53½ lbs druggists' bark.

NOTES ON THE DRUG MARKET.

(From Messrs. Gehe & Co.'s Half-yearly Report.)

ALCOHOL.—At present, in direct contradiction to the expectations which were indulged in when the German Spirit Act became law, the prices of alcohol and ether have fallen to such a low level that it seems as if the limits of possible depreciation are reached. Roughly speaking, the quotations for crude spirit in 1887 have been:—January, 37½m.; June, 42½m.; July, 65m.; August, 62m. to 75½m.; October, duty paid 97½m., "contingentirt" 44m., "not contingentirt" 35m.; December, duty paid 95½m. to 97m., "contingentirt" 45½m. to 47½m., "not contingentirt" 31½m. to 30m. per 10,000 litre per cent. It may be explained that "contingentirt" means spirit which is dutiable at the rate of 50m. per 100 litres of pure alcohol, while "not contingentirt" refers to a spirit dutiable at the rate of 70m. per 100 litres of pure alcohol. The quantity of alcohol paying duty at the rate of 50m. is limited in proportion to the population, 4½ litres of pure alcohol being allowed per inhabitant, while the share of the alcohol thus produced per year is allotted to each respective distillery at the rate of the average annual amount of taxation which it has paid between the years 1879 and 1886, not taking into account the highest and the lowest figure.

ALPHA-OXYNAPHTHOIC ACID.—This derivative of naphthal has already been mentioned previously. The acid is now commercially obtainable, and is said to be an extraordinarily efficient antiseptic and antizymotic. Its not unimportant poisonous properties operate against its employment as a substitute for salicylic acid in the preservation of food, but it may probably be used with care as an internal remedy in diseases of the bowels and feverishness when prescribed by a medical man. The principal field for its use is, however, as a disinfectant, and in this department it may eventually become a useful agent.

ANTHRAROBIN.—Professor Liebermann, who at one time investigated the composition of chrysarobin, and proved it to be the deoxidation product of chrysophanic acid, and also demonstrated that its activity was owing to its power of absorbing oxygen, has recently extended his investigations to the Leuco-substances of the anthrachinon dyes alizarin, flavo- and anthrapurpurin. In the process of manufacture these dyes are reduced with zinc in an ammoniacal solution, and the products of reaction, viz., anthrarobin, anthrarin P., and anthrarin F., are recommended for use in medicine as substitutes for chrysarobin. As the effect of all these preparations, judging by clinical experiments, is precisely the same, anthrarobin (from alizarin blue) will probably be selected by preference. It is rather insoluble in water, but dissolves in about ten parts of absolute alcohol, or in ten parts of glycerine at 100°; it has thus far been applied as a 10 to 20 per cent. ointment, a 10 per cent. tincture, and a 10 per cent. glycerine solution, and has been found efficacious, without producing irritation. It is said to take effect slower than chrysarobin.

ASAFOETIDA.—Although the arrivals have been small—London only received 72 cases in 1887 against 399 cases delivered—this drug has been almost uniformly in a neglected condition during the year. The use of asafoetida appears to have diminished, but yet fine qualities in block and tears are scarcely obtainable, nor do the 125 cases which arrived in February appear to have included any of these varieties. The owners of all parcels demand high prices, which have not been conceded thus far.

BALSAM COPAIBA.—During the summer of 1887 this drug remained firm at moderate prices, but in the autumn the decrease of the stock gradually caused values to advance about 50 per cent. Large parcels were taken out of the market, both in Hamburg and in New York, and at present genuine Maracaibo or Angostura balsams can hardly be found. The utmost care should be taken in effecting purchases, as sophisticated balsam occurs frequently. Thin Para balsam fails just at present, but the improved values of all varieties may soon attract large arrivals.

BALSAM OF PERU.—The test for balsam of Peru described by Denner at the late Congress of Naturalists at Wiesbaden has been frequently applied recently with excellent results. It appears that this test has received rather scant attention because it is apparently a very complex one. But taking

into account that only the qualitative presence of benzoic acid and storax in the balsam has to be determined, the test may be considerably simplified and the presence or absence of benzoic acid and storax put to the proof in a short time. The mode of proceeding is as follows:—Mix in a test-tube 5 grammes of balsam, 5 grains solution of soda (Ph. G. II.), and 10 grammes water, decant with twice fifteen grammes of ether, and remove the ether as much as possible. Heat the residue to boiling point, and acidulate it with hydrochloric acid, separate the resin which has separated upon the addition of cold water from the liquid, dissolve it in about 3 grammes solution of soda diluted with 20 grammes water, heat to boiling point and precipitate with solution of barium chloride. The precipitate should be filtered, dried in the water-bath, and exhausted with alcohol. The alcoholic solution is then evaporated, dried over concentrated sulphuric acid, chloroform poured on it, and turned over. If benzoic acid or storax are present, the chloroform takes a violet or blue colour. Even small admixtures may be detected with accuracy by this test.

BORAX.—The unremunerative prices of borax which existed during the year 1886 have been changed for the better by the establishment of firm quotations by the union of German borax manufacturers. The old stocks belonging to speculators are cleared off, and business has proceeded smoothly, although the profits to the middleman have been extremely moderate. Recently renewed efforts have been made by English manufacturers, and especially by the proprietor of the "Wood" brand, to reconquer the German market by offering, at equal prices with the German makers, to deliver the borax free to any railway station in Germany. The imports of borax and boracic acid in Germany, however, have much diminished, and amounted only to 2,374,000 kilos. in 1887, against 4,297,000 kilos. in 1886. Of the 1887 imports, 595,900 kilos. came direct from the United Kingdom.

BORACIC ACID.—Just as the price of borax, regulated by a union of producers, has remained unchanged during the past year, so the value of boracic acid, although it is not an article included in the borax convention, has experienced no change worth mentioning. On the other hand, the German commercial statistics show a considerable falling off in the imports as well as the exports of borax and boracic acid. The figures of the imports into Germany were 2,374,000 kilos. in 1887, against 4,297,200 kilos. in 1886, while the exports were 800,900 and 1,753,200 kilos. respectively. Large quantities of boracic acid continue to be used in fish curing, but recently doubts have arisen whether a prolonged use of it might not be harmful to the human system. In curing fish by means of boracic acid, a weak solution of the acid is combined with the effect of a pressure of six atmospheres, by which process about one-fifth per cent. by weight of the acid is incorporated with the fish, of which quantity two-thirds are subsequently again expelled during the cooking. It is calculated that the human body receives, therefore, $\frac{1}{2}$ gramme of the acid to each meal of cured fish. On the one hand it is said that such small quantities of acid cannot affect the human body, an assertion disputed by others, who maintain that they suffice to prevent the assimilation of the albuminoids.

BROMINE.—The recent advance in the price of bromine salts has not been able to do much to improve the position of the article, as the anticipation which formed the basis of the advance, viz., that the Stassfurt works would considerably increase their price for bromine, has not been realised. The reason for this is probably that the competition of the American producers operated against an advance, while, contrary to all expectations, a parcel of 55,000 lbs. bromine was sent over to England and weighed down the European market. It is, however, probable that no further disturbance of the European markets by the American producers will take place, as in that case the German manufacturers would be compelled to take reprisals.

CAMPHOR.—After having kept pretty steady in price during the summer of 1887, 65s. per cwt. being the London quotation, crude camphor has experienced a considerable improvement since last September, which was particularly accentuated during the two last months of the year, when, in consequence of speculative operations, the London price advanced to 90s. per cwt., and the quotation in Japan to \$26 and \$27 per picul. It is true that the London stock had shrunk very con-

siderably, but on the other hand the shipments from Iliogo during the year 1887 reached 43,561 piculs (23,947 Europe, 16,825 to America, and 2,789 to China, &c.), against only 36,632 piculs in 1886, and 21,199 piculs in 1885; so that, given a consumption which is certainly not increasing, there can be no question of shortness of supply. The returns regarding the monopolisation of the camphor production in Formosa by a few Chinese firms should be read with caution, while it is certain that the production in Japan has been stimulated by the high prices ruling in December. In fact, recently the quotations have again given way considerably, and a certain reduction in the price of refined camphor (which, however, had not advanced in the same measure as the crude gum) may be anticipated in time for the coming season of consumption.

CANTHARIDES.—The catch of cantharides last year is known to have been only a moderate one in Russia, but as very considerable quantities were gathered in Sicily, Hungary, and Roumania, many parcels remained unsold in Russia. The demand for New York remained a limited one, and is the reason that holders are now endeavouring to rid themselves of their stock at slowly-receding prices. Beside the new varieties of flies allied to the *cantharis* of commerce of which we made mention in our last report, cantharides have recently been sent over from Java, and a new variety, *Mylabris bifasciata*, has also been mentioned as being collected in the Cape Colony. As regards the latter fly, reports from South Africa state that the insect is by no means plentiful, and supplies on a large scale, even at a price of 15s. per lb., are doubtful.

CASTORUM.—Canadian castor oil still remains very scarce and dear. The usual August public sale of the Hudson's Bay Company could not be held owing to want of arrivals, and the consumption was therefore compelled to fall back on the remaining odd lots, and on a few unimported parcels from other sources. At the December auctions 2,030 lbs. were offered for sale against only 1,450 lbs. the year before, as there was a general demand prices ruled quite as high as in 1886, and for ordinary lots even 1s. 9d. to 2s. per lb. higher. A reduction in the value cannot, therefore, be expected at present, even if Russian castor oil should still further approach the price of the American, the former variety being quantitatively of too small importance.

CHLOROFORM.—The low prices of alcohol have been an advance in chloroform, which otherwise would have been warranted by circumstances. The Hamburg industry, which possesses the advantage of being favourably situated as regards alcohol and chloride of lime, is able now only to compete abroad with makers in the interior of Germany, but also to successfully compete in Germany itself, notwithstanding the protective duty. The movement in chloroform in Germany during the last three years has been as follows:—

	1885	1886	1887
Imports .. Kilos.	4,900	8,400	6,800
Exports .. "	62,200	44,900	3,700

Showing an annual increase in the imports, and steady diminution of the exports. Last year Germany imported 12,200 kilos. from Hamburg, and 2,900 kilos. from Stria.

CINCHONA.—It is possible that the cultivated Bolivian calisaya bark may soon acquire a considerable importance on the cinchona market. Many countries, such as Spain, France, the Levant, &c., still continue to adhere to the natural cinchona without epidermis, or, in other words, the Bolivian bark. This bark, therefore, commands a high price out of all proportion to its generally slight percentage of quinine alkaloid. The new cultivated bark is now also obtainable in flat pieces, which, however, are thinner, and a as yet covered with a weaker epidermis than the wild cinchona hitherto employed. But the percentage of quinine in the cultivated bark, apart from other alkaloids, is nearly always close upon 3 per cent., and as it can be procured cheaper than the wild bark, it may be expected that, notwithstanding its unusual appearance, it will soon make its way. The cinchona bark, official in Germany, and now obtainable in good quality at very moderate prices, is known to be distinguished by its richness in alkaloids, but its percentage of quinine sulphate

is, nevertheless, not inconsiderably lower than that of the cultivated Bolivian bark.

COC LEAVES.—Compared with 1886, the Hamburg trade in cocaine leaves has been considerably reduced, the imports having fallen from 86,000 to 33,300 kilos. (viz., 17,000 kilos. Bolivia, and 16,300 kilos. Truxillo leaves), although it is a fact that large quantities were collaterally forwarded to the interior of Germany, touching Hamburg in transit only. The large sale upon which crude cocaine is manufactured in Peru, and the heavy quantities brought to the European market, have so depreciated the alkaloid that the South American manufacturers have scarcely found their business pay, and the remunerative extraction of the alkaloid in Europe has become still more questionable. During the last few months, however, the value of crude cocaine has improved apparently in consequence of large purchases by the United States, which has also remained a steady purchaser of leaves in South America. So far as the latter are concerned low prices must not, therefore, be counted upon in the near future, all the more because fine green Bolivia leaves are difficult to procure. Recently successful efforts have been made to cultivate the coca plant in the tea districts British India.

CUBBS.—The supply of cubeb last year has been sufficient to satisfy the requirements, but notwithstanding this the Dutch dealers were able to maintain almost without alteration their excessively high quotations of 280 to 300 cents, or even more, per $\frac{1}{2}$ kilo, because they only offered small lots at the time and by gradual instalments, while London only received moderate consignments, and America was always in the market as a buyer. It is also said that the coming crop will be limited to 20,000 or 25,000 kilos. (others talk of 800 pds.), of which half is said to have already been sold for delivery at prices ranging from \$120 to \$135 per picul; but these estimates should be received with caution, as it appears that the cultivation and collection of the article is receiving attention at present in many different parts of Java. The standard by which the quality of cubeb berries is judged varies so much in different countries that it is rather difficult for the merchant to satisfy all requirements in this respect. In Germany the Pharmacopeia requirement which may in this case be usefully supplemented by a reference to the description of true cubeb given in Flügler's Pharmacognosia, are still looked upon as the standard, but in other countries the erroneous view has been adopted that all cubeb which when ground and treated with sulphuric acid do not at once yield a purple red colour are spurious. The outward appearance and other characteristics of samples are made subject to this prejudice, which estimates the value of cubeb merely by the percentage of cubeb they contain, and takes no account of the essential oil or the cubebic acid yielded by the berries. And yet some arrivals of cubeb, small, shrivelled fruit, but slightly resembling the official article and said to be the product of cultivated cubeb plants, have obtained, because of their high percentage of extract, higher values than the usual commercial article.

EMBLIA RIBES.—The berry-shaped fruit of *Embelia ribes*, an East Indian myrsinea, already mentioned by Hager as a rather singular adulterant of pepper, have been much inquired for recently. In India they are used as a remedy for tapeworm under the name of "Vaivarang," and appear to be coming into use in North America for the same purpose. Under the name of *Embelia ribes*, however, the fruits of the *Myrsina Africana* are also met with. The latter are natives of the Cape and of Abyssinia, and have already been brought into commerce previously under the name of "Zaddse" as an esteemed vermifuge.

GUM ARABIC.—All genuine Soudan gum may be said to have been cleared at the principal centres of the gum trade. At the beginning of 1887 it seemed as if commercial relations with harroum would again be established, but this appearance proved an illusory one. A few serons of Turkey sorts which were still obtainable sold at 15/- per cwt.; and picked lots, for which as much as 30/- was paid in England, are quite out of stock. As a substitute for these Soudan gums, Senegal, and all more Gehzirah, gums have had to be resorted to, and these varieties no less than 10,249 serons were brought to Tipton last year, finding a rapid sale. At present white Gehzirah gum has also grown very scarce, and it becomes

more and more difficult to procure acacia gum suitable for medicinal purposes. For technical uses the easily-soluble gums brought into commerce from Mecca, El Wish, Madras, Bombay, Amrad, &c., have supplied the demand at full prices, but the Australian acacia, which is difficult to dissolve, is rather declining in value. Unfortunately, the prospects of fresh supplies from the Soudan, instead of improving, are getting worse and worse, and the political troubles appear to be spreading farther north. And as the prospective supply of Gehzirah gum, which is generally exported via Kassala over Massowah, is far from encouraging, pharmacists will finally be forced to employ Senegal gums.

HERBA SANTA.—It is well known that the herb of *Eriodictyon glutinosum* has long been used as a balsamic and expectorant under this name. It is claimed that it is able to successfully disguise the bitter taste of quinine, and to the latter circumstance, which is not generally known, the renewed attention with which the herb meets must be ascribed. It has not yet been possible to obtain further details concerning the East Indian asclepiad *Gymnema sylvestre*, the leaves of which are said to obliterate the taste of sweet and bitter.

KOLA NUTS are arriving at Hamburg and London from the West Coast of Africa in somewhat larger quantities, and the article commences more and more to attract attention, because of its richness in theobromine as well as in caffeine. The difficulty still is to ship the nuts so as to keep them during transit, as it is found impossible to properly dry them at the point of production.

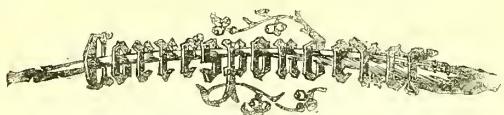
Lycopodium has been held at high prices in Russia, and it was difficult to obtain some reduction of the quotations. It appears that the collectors had become aware of the smallness of the stock left over from the previous crop, and increased their demands proportionately, but the holding off of buyers and the decline in the exchange ultimately caused some reduction. At present, stocks in Russia are said to be unimportant.

MATICO LEAVES have become exceptionally scarce, and nothing is yet known of fresh shipments. A few small lots which have recently been sent to Hamburg proved to be strongly mixed with spurious leaves, probably belonging to an allied species.

MUSK.—During the autumn the moderate quotations gave place to a steady advance, which brought up the price for first pile Tonquin musk from 75s. to 120s. per oz. The exports from Shanghai were: First quarter 1887, 674 caddies; second quarter, 595 caddies; third quarter, 173 caddies; fourth quarter, 902 caddies; a total of 2,344 caddies, against 2,279 in 1886. As a rule the exports are smallest in the third quarter, but last year they were exceptionally so, and the advance in the quotations is therefore not surprising. At present the London price has again receded to 93s. per oz. for first pile; but advices from China report a precisely contrary state of things, for the price has risen from 180 taels in fine to 240 taels, and it is even said that 255 taels has recently been paid. It is very probable that the high cost price of the parcels now afloat may cause a further rise, for in China the demand continues without interruption. Yunan musk is also very dear, and cabardine musk only arrives from Russia in such small quantities that scarcely any of it is obtainable at present.

OLIVE OIL.—So far as eating oils are concerned the expectations that were formed of the crop have not entirely been realised. The fruits have partly (in the Southern provinces of Italy, for instance) suffered from worms, while in other places the olives which remain longest on the trees, and yield the finest oils, have been damaged by frost and snow, thus reducing the yield of superfine qualities in Tuscany and the Riviera. Common and manufacturing oils are still cheap in Italy and the Levant; Spain alone asks high prices, being scarcely able to supply its own requirements. In Italy many voices are being heard on the subject of the adulteration of oil of olives with seed oil, and, more recently, with refined cottonseed oil. The bottle Lucca oils, so popular in England, are said to frequently consist of nothing but cottonseed oil. From Nice it is also reported that this oil, bleached and rendered tasteless is simply adulterated with 20 to 30 per cent. of olive oil tasting of the fruit, and brought into commerce as "Huile à manger."

(To be continued.)



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

The Pharmacy Bill.

SIR,—In attending the meeting on Thursday I was anxious to occupy neutral ground, not to influence its decision, but rather to learn the views of those present.

Your very prompt report of the proceedings (wired up, I am told, by your own representative) is necessarily somewhat abbreviated, and my remarks are cut short at a point—which it would appear by your editorial note—renders them somewhat misleading. Following my statement that the position of the older unqualified managers of branch shops naturally commanded some sympathy, I said, “the clause affecting them could not, however, be challenged on public grounds;” that “those who would be injured were few in number compared with those who would receive benefit; there appeared to be no reasonable way out of the difficult position into which these persons had unfortunately drifted, and I feared that in this, as in most other legislation, the few would have to suffer for the good of the many.”

The resolution fairly represents the views of the meeting, but it was scarcely carried “unanimously,” as Mr. John Bain, the honorary secretary, and myself did not vote for or against it.

Faithfully yours,

Liverpool, April 16.

CHARLES SYMES.

SIR,—I have read with interest the correspondence in connection with the Pharmacy Acts Amendment Bill in your columns, and although chemists and druggists are now wakening to look after their interests, my opinion is that they are still rather drowsy.

My conviction is that none of your correspondents have gone far enough in their proposals to excite any interest in the mass of our brethren.

I would entirely agree with the amendment of the Incorporated Society of Chemists and Druggists were they to add the following alteration in clause B—“and that it shall also apply to Scotland,” and to insert three other clauses, D, E, and F, to the following effect:—

D. Amending XV. of Pharmacy Act 1868 by inserting after the words, “from and after December 31, 1888 [changed to], any person who shall sell or keep an open shop for the retailing, dispensing, and compounding of poisons,” the words “chemicals, pharmacopeial and pharmaceutical preparations and prescriptions,” and so on in proper legal form.

E. and F. to provide for the suggestions of Mr. G. R. Galloway, slightly modified.

E. “That all patent medicines shall be retailed only by chemists and druggists and pharmaceutical chemists.”

F. Extending clause III. of new Bill to embrace all open shops kept by medical practitioners.

Do not you think the majority of your correspondents are rather hard on the curriculum part of the new Bill? I am sure the majority of chemists would think different were they to speak out. But if the mass are against it, fling it off, and every clause else that may be considered detrimental to our interests.

Chemists, one and all, up and say what you want! Let Parliament really understand exactly what our position is in this critical moment in the life-history of the bruised, hattered, but not broken chemist and druggist. This is a

world of itself. If we will not look after our interests, who will? Let us all, as was suggested, unite and to our local M.P.s petitions to look after this one item of ours this once.

Mr. Editor, through your generosity the was got in connection with the Early Closing Bill, and I seek you once more to don your armour, get at the feelings of the trade concerning this Bill and its suggested amendments, and with their help, fight the battle to the last.

I feel that if anything like an attempt is made the trade will get justice. Then satisfaction will be the keynote of chemists—at least, of one in north-east Scotland who now suhscribes himself,

ARBEITSAM. (38/59)

SIR,—The new curriculum, in my opinion, is well suited for, as I think, for all practical purposes. The Act 1868 was quite stringent enough. Nothing prevents those who desire a higher education from pursuing their studies; but I maintain this is not needful for conducting the business of an ordinary chemist and druggist.

Many of those who have passed a high standard of education sneer at a country trade. They cannot bring their minds to what they call menial work, for fear it should lower their dignity. They are always calling out for protection, always, as they say, in the interest of the public. All the care for it to charge a shilling for an article that would pay them well to sell at sixpence. They cannot stoop to mix a pound of paint, spread a plaster, and many other things they would have to do if they wish to succeed in a country business. If they are anxious for the public welfare, let them open shops in country districts where the public have no means to obtain drugs except from long distances.

As to branches opened by many registered and unregistered pharmaceutical chemists, in some cases managed by qualified assistants, but, I believe, though not technically qualified by law they are equally qualified by long training and experience. Many of them, some thousands, were apprentices when the Act of 1868 was passed, and a compulsory examination was not then insisted upon, and many of them he passed, and are now assistants or managers of branches. In my opinion these were unjustly treated when the Act of 1868 was passed. Many branches are opened in country places situate four to ten miles, or more, from any registered chemist, and must necessarily be a very miscellaneous business. These supply our acknowledged wants.

The promoters and the public may be well assured no owner of a branch would get any one to manage a branch unless he was quite competent to do so, his own reputation being at stake.

There is another, and, in my opinion, a far more serious aspect of the far-reaching and injurious effects upon registered chemists if the Act is passed and carried out to logical conclusions: no apprentice or unqualified assistant could sell poisons in the absence of the master. The chemist from his position in society is often called upon to fill public offices, and must necessarily leave his business in charge of apprentices. His health requires him to take a holiday occasionally, his apprentice or assistant, neither legally qualified, what is to become of his business during his absence if they cannot sell poisons?

Take my own case. Some years ago I was laid aside with illness over three months. During this time my business was conducted by my senior apprentice. I could not afford to engage a qualified assistant. All the above cases are in the same position as the manager of a branch—they like him, having to sell poisons in the absence of the master.

Suppose this absurd and illogical clause passed ill they compensate the owners of branch shops, many of whom have considerable capital invested in them.

Yours respectfully,
A CHEMIST OF VERY LONG AND VARIED EXPERIENCE.

Sir,—I have read with interest the various letters in your columns, and am surprised that so many assistant chemists are obliged to pass the qualifying examination are prepared to plead the cause of unqualified branch managers. I ask them why a man who has for twenty years occupied an unfair and anomalous position should be made the recipient of further favours?

The men who keep down the status of the trade by working for lower wages are of so minutely fractional a number in comparison with those who are compelled to qualify that it is to see reason for so much commiseration. The spirit of the law of 1868 is against them, and if our trade is to be elevated, it is not by admitting men to responsible positions who have neither studied nor have any inclination to study. Experience seems to be their *forte*, but if one man is allowed to act as a chemist on so slender a test as a matter of faith, why have examinations at all?

I remain, yours, &c.,

3 Exchange Walk, Nottingham. WILLIAM TURVER.

SIR.—It is to be hoped that the entire body of chemists will respond to the invitation given last week by Dr. C. E. Taylor (secretary to the Incorporated Society of Chemists and Druggists) to append their signatures in favour of the amendments proposed by the society he represents to the new Pharmacy Act. Exemption from jury service, and making the word "person" include companies, co-operative stores, &c., would both be great boons to the entire trade. The insertion of further amendments—as mentioned by Mr. Gallopy in his letter of last week—to prevent the sale of patent medicines containing poison by other than legally-qualified chemists; and to make medical practitioners who keep retail shops subject to the provisions of the Pharmacy Act, in common with chemists, being "consummations devout to be wished," is also desirable. With a protest again the proposed superfluous and oppressive "curriculum" I beg to subscribe myself,

Yours truly,

JUSTITIA. (39/53.)

SIR.—Some of your correspondents appear much interested in the provisions of the Pharmacy Act. In its present form the whole thing looks to me an absurd anomaly. One has to serve an apprenticeship, pass examinations, and pay fees. What for? The Civil Service is competitive, and, if successful one gets something certain for his trouble. Medical men enjoy a monopoly in their profession. But what is a chemist and druggist? What adequate return does he get for his pains? Medical men, from M.D. to L.S.A., do their own dispensing, and in many cases supply trusses, pessaries, and the like. Drugs, chemicals, and remedies of all sorts are flaunted before the eyes of the public in every huckster's shop. The grocer next door fills his window with patents retail at cost prices. A few years ago these were all considered the legitimate business of the chemist. This fuss about the Pharmacy Act is like a man making elaborate preparations for his wedding, to suddenly find he has no home for his bride. If the Pharmaceutical Society and certain M.P.'s have any respect for a druggist they should be sure there is something for him to do before talking so much about qualifying him for it. I do not say one word against qualification, but it is an open shame that a man should be compelled to pass through the legal ordeal to carry on one-tenth his business only to see the other nine taken from him, those in authority enjoy a class of business not so much affected by this piracy—worse luck for us they are not in the secret. The mass of country druggists are subjected to gross injustice at the hands of the law. It demands of us professional qualification, and lands us on a common platform with costers and hucksters. Is it too much to expect that when the State compels us by a process of hard work, time and money to qualify for dealing in and dispensing medicines, we have the privilege of doing that work, subject to proper conditions and exceptions. Is there no remedy for this abominable state of affairs? We want nothing from the law beyond a fair return for what it takes from us. There is nothing one-sided in our request—"Give us the right of doing and selling what you compel us to qualify for." It is all nonsense to talk about passing examinations and facing competition like other tradesmen. The druggist dare not and cannot sell the villainous stuff offered to the public under the name of medicine, in the holy cause of competition. The necessities of the case demand that the supply of so important a factor to the health and life of the community be intrusted to those who know what they are selling, and whose honour and reputation are at stake in this one line.

Competition in that case we are prepared to meet, and welcome a thorough qualification. Any Pharmacy Act that does not deal with this side of the question is a dead failure. You, sir, know as much about this as anyone, and have the confidence of the trade generally. Can you suggest or initiate a movement for bringing the actual state of pharmacy under the notice of our law-makers? If a Bill is framed on these lines there can be no doubt every druggist will do his best with his own representative to get it through.

Yours sincerely,

EAST ANGLIA. (40/39.)

Dental Mechanician.

SIR.—Will you kindly allow me to make a few remarks with reference to the title of "Dental Mechanician," which, according to a paragraph that appeared in your paper on March 31, has been assumed by a chemist at Wisbech, and which, as he says, is to avoid future unpleasantness (more correctly, to evade the law). Like your correspondent, "D. D.," in last week's issue, I think the description used is one which is meant to convey to the public, and to imply, that the user is qualified to practise dentistry, which, of course, he is not. In clause 3 of the Dentists Act, it says that "after the first day of August . . . a person shall not be entitled to take or use the title of dentist or of dental practitioner, or any name, title, addition, or description implying that he is registered to practise dentistry," which clearly means that any unregistered person using any of the above titles, or any such name, puts himself directly antagonistic to the law. The nucleus of the question is centred in the correct definition of the word "mechanician." The word "practitioner" may be defined as one who is engaged in the actual exercise of any art or profession. "Dental mechanician," in the same way, may be applied and defined as one who is skilled, and actually engaged, in the art of dental mechanics. If, therefore, any unregistered person chooses to assume this title, he is certainly doing that which the law forbids. We might as well (and more justly) expect any dental assistant, who having served an apprenticeship to the work, and in consequence possessing a fair knowledge of the mechanical part of dentistry, might add to his name the above title; but even he has no claim to the name until he has passed the required examination.

April 13.

L. D. S. Edinburgh.

[With all respect for our correspondent's opinion, we cannot help thinking that he is a little over-confident. It is certain, says "L. D. S.," that the assumption of the title "dental mechanician" by an unregistered person would be an infringement of the Dentists' Act. We confess we cannot see where the certainty comes in. It is not one of the titles specifically protected, and we fail to see how it implies registration under the Act. This Act being one of the class in restraint of trade would have to be construed strictly, and it is a bold prophecy that no court could read the title "dental mechanician" in any other way than as implying registration. Dentists do not seem to quite understand the purpose of their Act. No member of the Legislature ever intended to protect dentistry, dental operations, or dental mechanics; unregistered men are as free to practise these as registered men; and it seems to us that if any court should ever hold that the title "dental mechanician" is an infringement of the Act, the time would have come for a repeal or an alteration of the statute.—Ed. C. & D.]

Brown or Brown's Mixture.

SIR.—Your querist, 20/67, in the March 24 issue, probably means "Brown Mixture," a name applied to the compound liquorice mixture of the United States Pharmacopoeia. Through misunderstanding the laity not unfrequently term it Brown's Mixture in the United States. Yours truly,

72 William Street, New York. CASWELL A. MAYO.

Ethyl Nitrite.

SIR.—It was with very great interest that I read Professor Dunstan's paper on Ethyl Nitrite. And no one can doubt for a moment Professor Dunstan's ability as a true chemist; but his attempt to advise practical pharmacists how to dis-

pense such a substance as ethyl nitrite is, I think, amusingly ridiculous, and, as a practical pharmacist, I should strongly recommend his advice in that direction to be accepted with the greatest amount of caution.

Here we have a substance whose boiling-point is 175° C. (Tilden 164°), and which also assumes the gaseous form at a few degrees higher than that. Therefore, every pharmacist knows that the dispensing of such a substance under normal conditions is simply impossible. But to get over this barrier Professor Dunstan proposes the use of a 2 per cent. solution of the ethyl nitrite in absolute alcohol, with the addition of 5 per cent. of glycerine.

Now, supposing a patient had to take 5m of ethyl nitrite, which I do not think would be an abnormal dose, by using this solution he is compelled to take along with every dose nearly 4 drachms of absolute alcohol, consequently I am afraid the question would be raised whether the spirit or the ethyl nitrite was the more beneficial to the sufferer.

Then the sending out of this solution in small bottles by itself, each dose to be mixed when taken, is also unsatisfactory. In most cases water would be the vehicle in which it would be administered, and 2 oz. at least would be necessary to render such an amount of absolute alcohol palatable, and the rapidity with which 5m of ethyl nitrite would decompose when mixed with 192 times its volume of water can easily be imagined. In fact, I am not sure that it would even mix with the water; it would probably float to the top of the water, leaving its solvent in solution, and at ordinary room temperature it would evaporate almost spontaneously, if it had not sufficient time to decompose.

The best method to dispense such an ethereal substance is to make a simple solution of 1 part ethyl nitrite to 3 parts absolute alcohol, and then enclose this solution in flexible gelatine capsules, each capsule containing 20m of the solution, equal to 5m ethyl nitrite, care being taken to leave room in the capsules for a certain amount of expansion.

Then Professor Dunstan's method of storing ethyl nitrite necessitates the use of quite too scientific a toy for the convenience and practice of pharmacy in these fast times. The rough and ready, yet practical and common-sense, method has always been the fate of pharmacy, and must of necessity continue to be so.

Leith.

JOHN T. COATS.

The Dogs' Corner.

SIR,—I am reminded by your mention of cayenne pepper ammonia, &c., of my intention of pleading for the dogs who visit our shop doors.

A woman was once asked how she kept her surly husband in order: and she replied, "I feed the brute well."

Some years ago dogs were a great nuisance. My doorway is widely splayed, and is very open (almost at a street corner), and it was an object of curiosity to the numerous dogs in whom modern fancy delights. Cayenne pepper and hellebore were wasted to no good purpose; nor did an occasional bucket of water mend matters. Then I bought a couple of water troughs and kept them well filled. The result is that they are a source of comfort to the animals, of admiration to their owners, and of *kudos* to me—although a tax on my errand-boys. But I have had no further nuisance from the dogs.

Yours truly,
HEDER.

Retail Co-operation.

SIR,—Your intelligent correspondent "Heder" states, with startling brevity and correctness, the problem that on a former occasion I had profusely placed before your readers. "You sell my goods, I will sell yours, mutually helping each other with experience as to *modus operandi*," is concisely the marrow of my projected scheme. "Your selling my goods, and I selling yours," is only a part of the case; the other and higher position I will put as follows:—A. B. has found life insurance on the whole a good agency. By a careful scrutiny of the birth, marriage, and death list in the local papers, he has pounced down on excellent lives and secured them; a short printed history of such a case would be instructive. C. D. has tapped a mine of wealth in homoeopathy. By a judicious distribution of pamphlet guides, by

placing Rubini's camphor and mother tinct. of conite in their best and most telling positions, he has secured a paying clientèle who are not likely to go further afield. E. F. undertakes doctors' dispensing, and finds it remunerative. One gentleman comes to the pharmacy to write his prescriptions; in another case the assistant goes to the surgery for one hour every afternoon. In this way E. F. is able to keep an assistant and apprentice, which otherwise would be impossible. Query—Is this an advantage or a drawback? Does doctors' dispensing pay?

Now as to co-operation, I should be pleased to respond with "Heder" on that matter. I do not think locality would affect the question in five cases out of six. Nothing could well be lost, but something gained by an interchange of experiences. I would suggest that four or six should combine, that each should select from four or six proposals the one that would best suit him; and when this stage is passed, mutual confidence, should ensue. Until this is done, no disclosure need take place; but if there is mutual suspicion instead of confidence, it would be better to leave it alone.

Yours truly,
FIDES. 40/20.)

Cocaine Snuff.

SIR,—A preparation which is said to consist of grain of cocaine hydrochlorate to a drachm of starch powder being sold in this town as a remedy for influenza. It is remarkably useful, and, if safe, is a valuable addition to our counter elegancies. Have you any record of the first suggestion of this article?

Yours truly,
EDER.

[Sir Morell Mackenzie, in his book on "Hay Fever," makes frequent reference to the use of cocaine in nasal disorders. In the "Extra Pharmacopœia" will be found a considerable number of references to medical papers on the subject.]

DISPENSING NOTES.

[The opinions of practical readers are invited on subjects discussed under this heading.]

An Emulsion Wanted.

SIR,—I made up the liniment mentioned by Alpha (34/143) last week, and experienced no difficulty getting an emulsion which appears to be very satisfactory as it has stood for forty-eight hours without showing any signs of separation.

The *modus operandi* is as follows:—

Rub down the borax with the glycerine and a few sp. camph. Then add gradually the ol. olivæ and q. calcis (previously shaken together in a bottle).

Yours respectfully,
R. H. B. 9/17.)

Pill Ideas.

SIR,—In my humble judgment neither metal funnels nor triple bed-plates are necessary. I am using a male slab, size of a dinner-plate, but so thick that when thoroughly warmed through near the fire it retains heat long enough to work off many gross of pills. And instead of leaving the pills to harden by long exposure in trays, and again having to round them with the finisher, I prefer making the batch from the first in a hot mortar, at a less expenditure of both excipient and elbow-grease. Transfer the mass to an "pipe" on, hot slab, and after dividing on the machine end on hot slab again, and, lastly, on cold surface, e.g., sheet of paper on the counter, where the pills will at once get hard under the finisher, never to "fall" again.

I never tried pound-weights as pill-finishers, but it has occurred to me before now that glazed porcelain would be preferable to wood, being easier cleaned after strong-smelling masses, but should use it cold, that the pills may set hard whilst revolving under it. Such is the idea of

CATTAFJORD. (20/)

Liq. Hæmatoxli Comp.

SIR, Your correspondent, "Belladonna," is wrong in presuming that nitrous acid is meant for ac. nitros. f., which he quotes his query.

Strong nitric acid is constantly used by the medical men in this town for diarrhoeic and dysenteric symptoms with great effect. As for liq. hæmatox. co., the original recipe was by Dr. Budd, and it was prepared by Savory & Moore. Other wholesale houses, however, now prepare it; it is quoted at 4s. 6d. per lb. It is a concentrated decoction of logwood with other astringents, catechu, rhatanay, and some cardamoms.

Faithfully yours,
CHAS. SHAPLEY.

11 Snd, Torquay.

Liq. hæmatox. co. is an old preparation of H. A. Thompson and others. It contains ext. hæmatox., cort. cinnamomi, and sugar, th one-fifth S.V.R.

HEDER.

Citrate of Iron and Quinine Mixture.

SIR, I had the enclosed prescription to dispense the other day. When sent out it was perfectly clear; two days after it was brought back with seemingly the quinine deposited, or rather flocculent deposit. Should this be so?

Terri et quinæ citratis	..	..	..	5j.
Acid. citrici	..	..	..	5j.
Potass. citratis	..	..	..	5iss.
Syr. zingiberis	..	..	..	5ijj.
Tinct. cort. limon.	..	..	..	5j.
Aqua ad	..	..	..	5vj.
Fr. mist.				

Yours truly,
NEMO. (39.36.)

A Copiba Emulsion.

SIR, Can you, or any of your readers, through the medium of the Dispensing Notes, give me any information as to how the following prescription can be dispensed without any separation taking place:—

Liq. potass.	..	..	..	..	5iss.
Bals. copaiba	..	..	..	..	5ijj.
Mucil. acac.	..	..	..	..	5ijj.
Syr. simplicis	..	..	..	..	5ijj.
Aq. ad	..	..	..	..	5iv.

I have tried several ways, but have been unable to prevent a separation after a few hours. Yours faithfully,

X. Y. Z. (39.67.)

[Place the fresh mucilage in a mortar, and stir it well round, add the copaiba, and mix; next add gradually the solution of starch diluted to an ounce with water, stir constantly and vigorously, so that an emulsion may be formed. Add the rest of the water and the syrup last.]

A Quinine Mixture.

SIR, How should the following prescription be compounded (without adding to the ingredients) so as to make it prescribable:—

Soda salicylate	..	..	..	..	5iiss.
Quinine hydrochloratis	..	..	..	gr. xvij.	
Acidi hydrobromiceti	..	..	..	..	3ij.
Spirit. chloroformi	..	..	..	..	5ijj.
Syrupi aurantii	..	..	..	..	5j.
Aqua ad	..	..	..	..	3viii.
Sumat 5ss. ter in die ex Iss. aquæ post cibos.					

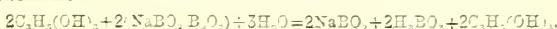
EEL. (38.73.)

[In this case there are two double decompositions. First, between part of the salicylate of soda and hydrobromic acid, and between another part of the salicylate and the hydrochlorate of quinine. The salicylic acid and salicylate of quinine are both light substances, which tend to rise to the surface of the mixture and stick to the bottle. A very little mucilage of acacia effectually prevents the latter object, and the syrup has a similar effect in a less degree. The best way to make the mixture without addition is as follows.—Place the salicylate of soda in a mortar and dis-

solve in as little water as possible; dissolve the quinine in 2 drachms of water and the acid; add this to the salicylate, stirring constantly with the pestle; now add the syrup in the same way, and 4 oz. of water, transfer to the bottle, and finish in the ordinary way.]

Glycerine and Borax.

39.62. *H.*—The effervescence of mixtures containing borax, sodium bicarbonate, and glycerine is due to the interaction of the glycerine and borax, whereby boric acid is freed, and that combining with the bicarbonate causes evolution of carbonic acid gas. Mr. Wyndham R. Dunstan, who investigated the action of some polyhydric alcohols on borax, gives the following equation as explanatory of the reaction:—



34.43. *Alpha.*—Stains of Turnbull's Blue may be removed by treating with caustic potash; then wash well with water, and remove the residual iron stain with salt of sorrel.

LEGAL QUERIES.

3.37. *J. W.*—Messrs. Lea & Perrins lost any claim they might have had to the exclusive property in the title, "Worcestershire Sance" by not prosecuting infringements with due diligence. *Vigilantibus non dormientibus subvenit lex.* It would not, however, be either honest or safe for anyone else to adopt a label which colourably resembles theirs.

33.24. *Fly-Papers.*—No one but the Pharmaceutical Society can prosecute unqualified persons for selling poisons. It is quite possible that if they were to prosecute such a person for selling fly-papers which it could be proved contained arsenic a conviction would be obtained, but it is not quite certain. Moreover, it must be remembered that if they come under the Pharmacy Act they are properly in the first part of the schedule, and therefore every sale must be registered, &c. For infringement in this respect the police or anybody can prosecute.

33.65. *W. H. B.* suggests that "Heder's" suggestion for making a proprietary medicine of his croup mixture would render the sale of it as much an infringement of the Apothecaries Act as if he mixed it up before the customer. That would depend on the circumstances of the transaction. A chemist infringes the Apothecaries Act only when he "acts as an apothecary," that is, when he professes to judge of disease by its symptoms, and tries to cure that disease by medicine. So that if a customer came to a chemist and described his symptoms, and the chemist said, "You have got croup; here is some medicine; take that," he would be acting as an apothecary. But if the customer were to say, "I have got croup; give me some croup mixture," the chemist would not be infringing the Act. In the Shepperley case Mr. Baron Pollock put such a case as this, and expressly said that such dealings or that ordinary conversation in regard to the medicine and the purpose for which it was to be taken would not bring a chemist within the scope of the Act.—Pure menthol is exempt from medicine-stamp duty because it is a simple drug. Your tic-doloureux mixture is in a different position.—We cannot take a side in a case before the Court.

37.16. *Jericho* asks if he is compelled to show his poison-book to a police inspector, or such like person, on the ground that if he did show it it might incriminate himself in not having duly carried out the provisions of the Act. Moreover, as a witness at a coroner's inquest, is he compelled to give evidence or answer questions which might bring a prosecution upon himself; and what is a proper fee for a chemist to receive for attending an inquest as a witness? [There is nothing in the Act which compels a chemist to show his book to the police. As to criminating questions, it

was laid down in *Wakley v. Cook*, 4 Exch. 511, that evidence ought never to be excluded on the ground that it may criminate the witness. The proper course is for the coroner to tell him that he is not bound to criminate himself, and to allow him to make any statement he may wish. It follows that a witness is not bound to answer a question which might lead to his being prosecuted or render him liable to a penalty. Our correspondent, however, is reminded of the provisions of the Coroners Act, 1887, sec. 19, sub. sec. 2, which provides that "where a person duly summoned to give evidence at an inquest does not, after being openly called three times, appear to such summons or appearing refuses without lawful excuse to answer a question put to him the coroner may impose on such person a fine not exceeding forty shillings." The fact that the evidence would render the witness liable to prosecution or a penalty would be a lawful excuse. There is no case so far as we are aware decided as to whether a chemist's poison-book is privileged from inspection when he is subpoenaed to produce it on the ground that it might criminate the witness, but no doubt it would be held to be so. You will find a case referred to in THE CHEMISTS' AND DRUGGISTS' DIARY, p. 149, where a chemist on his solicitor's advice refused to produce his poison-book, and was not required to do so by the magistrate. But this does not settle the question, and the law on the subject of the privilege of witnesses is in a very confused state. With reference to the expenses of witnesses, the Act already quoted provides in sec. 25 that the local authority shall make a schedule of fees, allowances, and disbursements to be paid by the coroner, and a copy of every such schedule is to be deposited with the clerk of the peace of the county or borough, and a copy furnished to the coroner. Section 26 of the same Act directs that the coroner shall pay the fees, &c., immediately after the termination of the proceedings. The expenses allowed to various classes of witnesses no doubt vary in different localities, and our correspondent had better apply for inspection of the schedule to the clerk of the peace of his district.]

39/29. *Bovis.*—We should not consider that the assumption of the title of "veterinary chemist" would be an infringement of the Veterinary Practitioners Act. The question is whether a Court would regard it as a title, addition, or description implying that you practise veterinary surgery or any branch thereof, or are specially qualified to do so.

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ which have already been published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ, or replies required, are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

Milk Substitute for Calves.—A formula for calf-meal is given on page 516 of our issue of April 23, 1887. (36/48. T. E. B. B.)

Diamond Cement.—Formula, October 15, 1887, page 501.

Butter-powder.—See October 18, 1887, page 470.

Iodised Sarsaparilla (Blood Purifier).—Formula, September 24, 1887, page 388. (36/10. *Stuckfast.*)

Liquor Podophylli.—See our issue of March 24, page 414. (37/9. *Nemo.*)

Egg Julep.—See February 26, 1887, page 280.

Washing Fluid.—See page 312, March 19, 1887, and other references since. (38/68. *Desdichard.*)

Pill-finishers.—Messrs. Bracher & Co. (Wincanton) write to say that they are preparing for the trade an adjustable metal pill-finisher, which, when ready, they will announce by advertisement in this journal.

34/20. *Meta.*—We do not know the acid strength of the different vinegars mentioned, but with that information you can have no difficulty in diluting 1040 acetic acids to the respective strengths. The acid contains 33 per cent. of real acetic acid, so that if you wish to reduce it, say, 6 per cent. acid—

$$\frac{100 \times 33}{6} = 550$$

the volume to which 100 parts of the acid must be diluted with water. (2) **Lemon Kali.**—One part each of tartaric acid and bicarbonate of soda, and two parts of sugar, are the usual proportions, with lemon oil as a flavour. A few drops of orange greatly improves the flavour. If you want a cheaper article than tartaric acid, you must use tartaric acid sulphate of potash).

35/29. *J. W. B.*—The following is said to be the method used at the Enfield small-arms factory for Bronze Gun-barrels. The barrels and bodies are first scalded in solution of soda for twenty minutes, and then washed in clear water. Then the following browning mixture is applied:

Spirits of wine	5 oz.
" nitre	8 "
Tincture of steel	8 "
Nitric acid	4 "
Sulphuric acid	3 "
Blue vitriol	4 "
Water	1 gall

The guns are then placed in a damp heat for about an hour and a half, when they are scalded again, and when cool the rust is scratched off. This process is repeated four times, and then the barrels are cleaned and oiled. The whole operation occupies about eight hours.

33/63. *Lion.*—The *Eau Dentifrice du Docteur Ferre* is closely imitated by the following:

Sp. vini rect.	q. s.
Ol. caryoph.	q. s.
" cinnam.	q. s.
" anisi	q. s.
" menth. pip. ang.	q. s.
Tr. coec. ammon.	q. s.

M.

27/46. *Goose Grease.*—In answer to 27/46, *Lincay* says this may be bought at prices varying from 1s. to 2s. 6d. per stone, and retailed at 6d. per lb.

Ethyl Nitrite.—In the formula given by Messrs. Dunstan and Dymond for the preparation of this substance the quantity of sulphuric acid was stated as 27·5 c.c., instead of 35 c.c., which is the amount to satisfy the molecular requirements.

38/53. *Physic.*—For the dates of the various editions of Attfield's "Chemistry" apply to Gurney & Jackson, Paternoster Row.

38/54. *Assistant* wants to know the best meal of protein to cure a situation as chemist's assistant in New York. The best and, we should say, the only means would be going there. New York chemists are very unlikely to take engagements with assistants here when they can always get men with more specially suitable experience close at hand.

38/45. *Canada.*—We published exhaustive articles on "Pharmacy in Canada" on May 29 and July 31, 1887, by Mr. A. H. Mason, F.C.S., of the firm of Evans, Sons & Mason (Limited), Montreal. That gentleman obligingly referred to give information cognate to the subject to chemists who might be disposed to try their fortunes in Canada. It would be only fair, however, to him to first carefully read his articles, and trouble him only on points fairly connected with the business.

10. *Stuckfast*.—To make **Lavender Salts**, fill the boxes with large pieces of volcanic ammonium carbonate, add strong solution of ammonia and a few drops of strong lavender water.

25. *X. C. C.—Spring and Autumn Medicine*.—A saline powder for purifying the blood is made by the following formula:—

Sulphate of magnesia	1½ oz.
Cream of tartar	½ "
Ginger	2 drachms
Chlorate of potash	10 grains

A fine powder and mixed. A little sugar may be added, but it is best without it. Sufficient to make an imperial pint of medicine with water. Dose. A small wine-glassful every morning on rising.

46. *Amicus.—McDade's Succus Alterans*.—Considerable interest was evoked in the United States some years back by the announcement that Dr. McDade had discovered a specific remedy for syphilis. The mixture was composed of decoctions of various plants, and was first prepared by the "medicine men" of the Creek tribe of North American Indians. The following is the formula, as modified by Dr. McDade and Marion Sims:—

Ext. smilae. sarsæ Igq.	.. .. ..	3xvj.
„ stillagine „	.. .. ..	3xvj.
„ lappe minor „	.. .. ..	3xvj.
„ phytolacæ „	.. .. ..	3xvj.
Tinct. xanthoxylí ..	.. .. ..	3vij.

M.

D.—One teaspoonful in water three times a day, before meals, increasing gradually to a tablespoonful.

57. *Cinnamon.—Unguentum Sulphuris Compositum*.—The formula of the *London Pharmacopœia* is that which is generally adopted. It is as follows:—

Sulphur .. .. .. ..	..	3iv.
White hellebore .. .. .. ..	..	3x.
Nitre .. .. .. ..	..	3ij.
Soft soap .. .. .. ..	..	3iv.
Lard .. .. .. ..	..	1 lb.

Unguentum s.a.

The preparation is frequently perfumed with bergamot.

38. *T. J. Addis*.—The "foam" on aerated waters is produced by the addition of tincture of quillaia, senega, or another harmless substance containing saponin. The most effective anti-ferment for sweet aerated waters is salicylic acid. Stevenson & Howell, in their excellent little work on aerated waters, give the following directions as to quantity and method of proceeding:—Put 1 oz. of salicylic acid into a mortar and add about an equal bulk of cold water. Rub this well with the pestle to a smooth cream, quite free from lumps, and add a small quantity of syrup. Mix well, and the thick creamy mixture to 10 gallons of syrup. Stir well and in a few minutes the salicylic acid will entirely disperse.

25. *A Country Chemist* puts the following question.—What is the custom generally with regard to *Poisoning Dogs*? For instance: a customer comes in for pric acid for that purpose. Is it advisable to supply it, or insist on the dog being brought to be poisoned; also, what is the best way of giving the acid? [The custom is to poison dogs rather than sell the acid. To prevent his shop acquiring the reputation of being a canine slaughter-house the chemist should go to the dogs (we use this in the literal, not the figurative, sense) rather than allow them to be brought to him. The best way to give the acid is by means of a glass syringe or a long sample phial, placed well to the back of a dog's mouth, and the contents (½ oz. of Scheele's acid) injected or dexterously poured down the throat. (2) We may have a copy of the prescription before we can express an opinion upon it. (3) Clean wire hair-brushes with hot water to which a little borax has been added.]

37/71. *C. M.*—There is no curriculum enforced for qualification as an analytical chemist, but membership of the Institute of Chemistry is beginning to be recognised. To become an associate of that institute an examination must be passed for which preliminary training is required. For full particulars regarding the matter address the Secretary, Institute of Chemistry, Somerset House Terrace, W.C.

38/51. *G. E.*—Did you read our issue of March 31? We gave a formula for gelatine bottle-capsules on the last page.

38/57. *Case*.—We do not quite understand how the "gun-cotton" stains on the coat have been produced, but if through the cotton being unfreed from acid, the application of ammonia may give the desired result.

39/10. *Mortar and Pestle*.—The address required is Wormwood Street, E.C. This correspondent writes:—"There is a Rat Poison, 2s. is the smallest size, which is in the form of a biscuit, like a sponge biscuit, with a dry white adherent powder in it. This poison is said to be much superior to others in use, inasmuch as it contains in it an ingredient which causes the bodies of the rats, immediately after death, to burst, and which prevents any obnoxious smell arising therefrom. What is this ingredient?" [We have not examined the poison in question, but may say that carbonate of barium, a common ingredient in rat poisons, is said to have the peculiar property of bursting the dead rats' bodies, due partly to the fact that the animals drink much water before they die, and partly to the evolution of carbonic acid gas.]

38/73. *Mack*.—Oxymuriate of mercury is corrosive sublimate.

"Samoht" (34/37).—The best cement is a paste of india-rubber (pure) softened by mineral naphtha or chloroform. It must be rubbed on the window, and the tablet is then affixed by gentle and equal pressure all over its surface.

HEDER.

"Washing Chamois Leather."—An old dodge for keeping this leather supple is to soak it in a weak solution of potassium carb. A soapy leather would not be particularly suitable for cleaning windows.

HEDER.

38/52. *F. D. (Budapest)*.—The following are good formulae for the sachet perfumes which you require:—

Chypre.—Ground cedar wood, 1 lb.; ground sandal wood, 1 lb.; ground vanilla beans, ¼ lb.; ground Tonquin beans, 2 oz.; powdered orris, 1½ lb.; oil of French geranium, 30 minims; oil of bergamot, 15 minims; otto of rose, 25 minims; extract of musk, 1 oz. Mix.

Heliotrope.—Powdered orris, 2½ lbs.: ground rose leaves, 1 lb.; ground vanilla beans, 6 oz.; ground Tonquin beans, 4 oz.; extract of musk, 1½ oz.; essential oil of almonds, 7 minims. Mix.

Rose.—Orris, ½ lb.; rose leaves, 1½ lb.; sandal wood, 4 oz.; patchouly leaves, 2 oz. (all ground); extract of civet, ½ oz.; oil of rose geranium, 30 minims; otto of rose, 25 minims. Mix.

24/67. *Chocolate*.—The perfume of your tooth-powder is, apparently, orris, otto of rose, and oil of neroli, the basis of the powder being precipitated chalk.

36/37. *Zinc*.—The following is a very effective *Moth-powder*:—Camphor, 4 oz.; benzoin, 1 oz.; black pepper, 2 oz.; cedar sawdust, 5 oz. Mix. The first three ingredients should be in coarse powder. The furs should be packed in layers with tissue-paper between, and plenty of the moth-powder placed on the paper.

Professor Bentley.



It was with much pleasure I heard of the proposal to crown Professor Bentley with the classical laurel, which, being modernised, means to present him with a testimonial.

I am not the only student at the "Square" who, whilst studying botany there, learned to love the teacher as well as the science he so aptly taught. The kind old Professor, with his pleasant smile and patient manner with raw recruits! It can have been no easy task sometimes to lecture to us, for I think we were rather inclined to be hilarious; yet I can remember no more severe remonstrance than a calm, "Gentlemen!

I demonstrate!"

Another familiar expression of his was, "Whenever we are in difficulty we always apply to our Yorkshire friends." This caused much cheering, especially from the sons of the great county.

Punctually at 8 A.M. the Professor might be found, wet or fine, at the Royal Botanical Gardens, Regent's Park, amongst his friends, the flowers. The digitalis was a great favourite of his; but I believe he loves them all with a sort of reverent affection, as I remember well his telling us that his first impulse on meeting with a beautiful flower in the open country was to take off his hat, even as men of old removed their shoes when treading upon holy ground.

His is a sympathetic nature, and there are men now started successfully in life who in a moment of failure in passing an examination were strengthened and encouraged to try again, and comforted by the assurance that examinations are not everything in life.

Some of us are still honoured now and again with a genial letter from our former Professor.

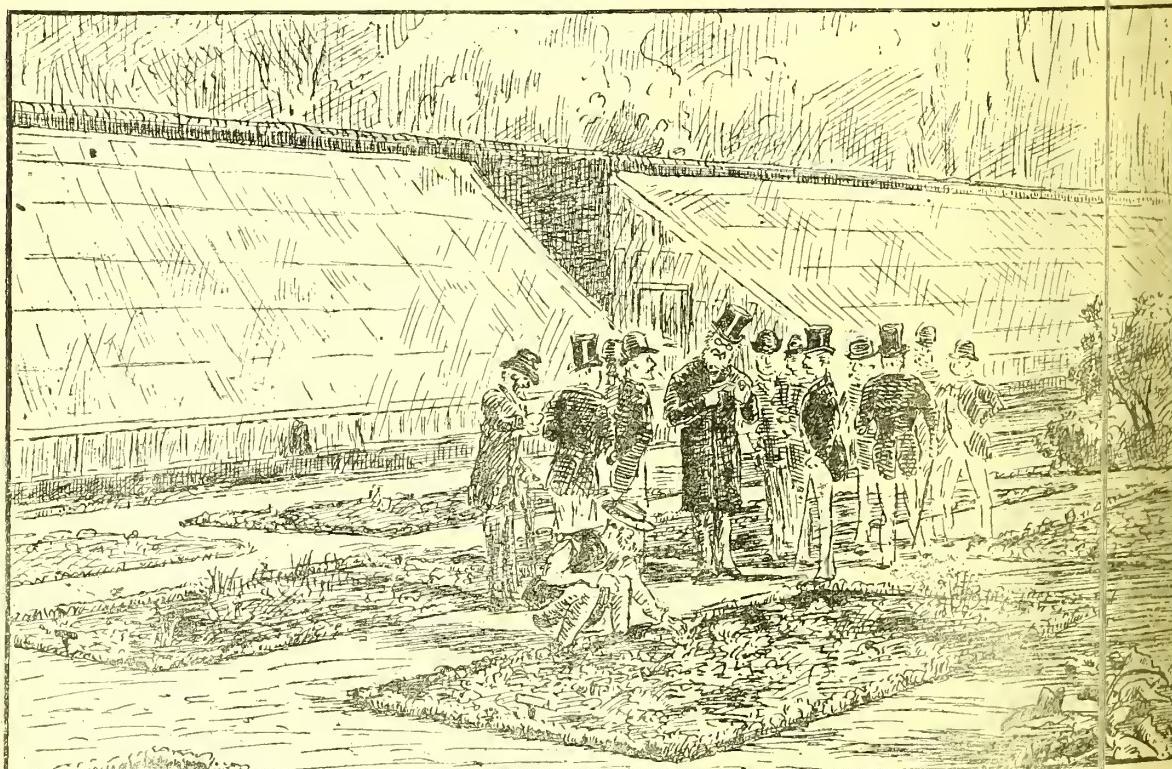
No one will grudge him his well-earned rest; but I think that the present students, whatever their superior advantages as regards the Research Laboratory, will miss one great

advantage which we enjoyed, viz., the kind tutelage of Professor Bentley.

FRED. REYNOLDS.



RETURNING FROM THE LECTURE.



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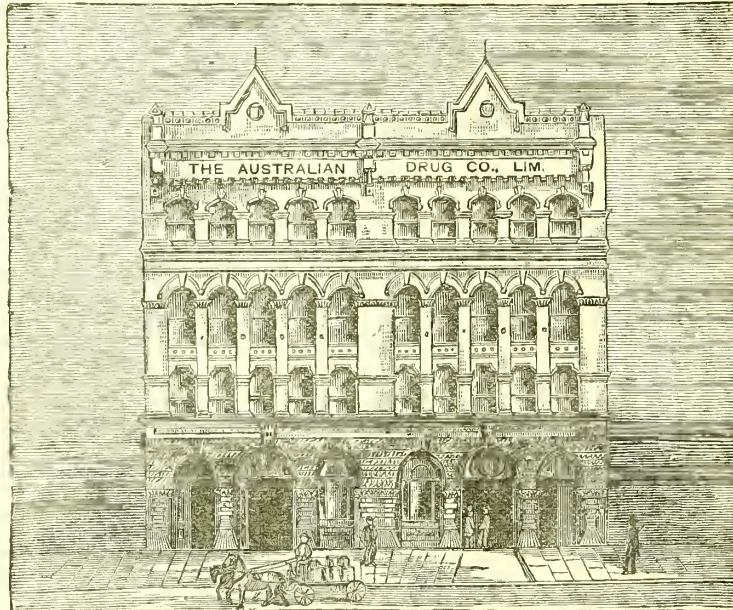
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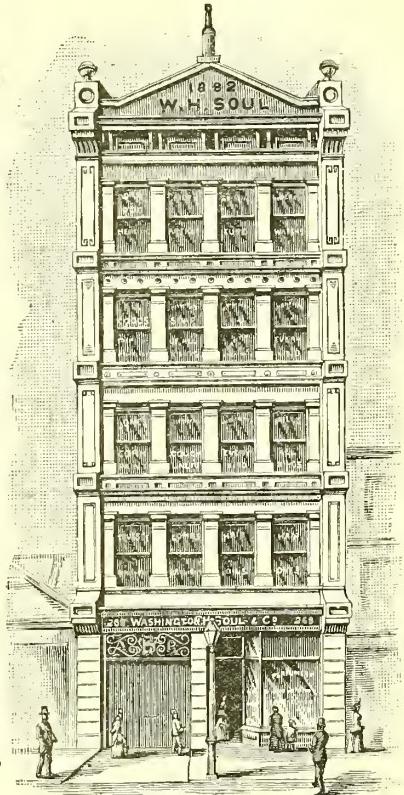
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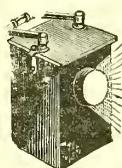
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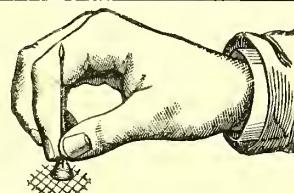
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Burchell's Anodyne Necklaces, Ford's Balsam of Horehound, Widow Welch's Pills, by Mrs. Smithers, Oxley's Essence Ginger, and the preparations of Messrs. Hudson & Son, late of the Haymarket, London.

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NOTICE.

There is absolutely no Acid or Alkali used in the manufacture of

PETROLINA.**PETROLINA**

Is a pure product of Petroleum deodorised by the action of superheated Steam and Air, and decolorised by filtration through Bone Charcoal.

NEVERTHELESS,

PETROLINA is as Cheap as any of the inferior Jellies produced by the less expensive and highly deleterious Acid process.

THEREFORE,**BUY THE BEST,**

When it is also

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TO CHEMISTS

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Complete with ORNAMENTAL MIXING SLAB, PRICE 5s. SAMPLES FREE.

The most Perfect WHITE TOOTH STOPPING yet offered. Warranted to remain insoluble in the acids of the mouth. The most easily prepared filling yet produced, and the greatest boon to the Profession.

Order through the Depots or direct from the Sole Manufacturers—

ROBERTS & COMPY.
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MALDON CRYSTAL SEA SALT.

FOR BATHS.

SALT

A PERFECTLY PURE SALT.

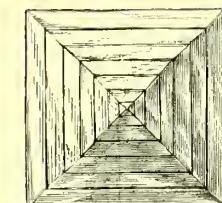
Strictly recommended by the medical profession.

DIRECTIONS FOR USE.

An ordinary teacup full to each Gallon of Water; dissolves more readily than any other Salt, and

REQUIRES NO FILTRATION.

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MALDON

Sole Manufacturers :
THE MALDON CRYSTAL SALT COMPANY.

London Agents—
LYNCH & CO.,
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9/6 per dozen 7-lb. Boxes Net.

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For TWENTY-FIVE YEARS has maintained its world-wide reputation as THE ONLY SAFE RELIABLE PHOSPHORIC REMEDY ever discovered for the Permanent Cure of Brain Wreckage, Paralysis, Sleeplessness, Harassing Dreams, Premature Decay of Vital Power, and all Functional and Diseased Conditions of the System dependent upon the Deficiency of the Vital Forces. It Cures Dyspepsia, Nerve and Heart Disease. Cures Kidney and Liver Complaints. Cures all Blood Disorders. Cures Consumption and General Debility. Checks all Wasting of the Vital Forces, from whatever cause arising.

THE EFFECT of this Standard Phosphoric Remedy in Nervous Debility and its Kindred Evils is Immediate and Permanent, all the Miserable Feelings and Distressing Symptoms disappearing with a rapidity that is REALLY MARVELLOUS.

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HEALTH, STRENGTH, AND ENERGY.

Is the only Medicine of the kind or name awarded a Certificate of Merit at the Calcutta Exhibition, 1883-4, where all Countries were Exhibitors, and the only Trade Mark—"PHOSPHODYNE"—Registered and Protected under the Trade Marks Act.

THOUSANDS of unimpeachable Testimonials from all parts of the World, and from the highest Medical Authorities, prove conclusively the Verdict Universal that in the World of scientific research no other Phosphoric Preparation has received such exalted praise and distinguished recognition.

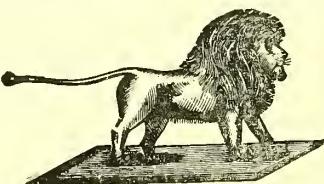
Full Printed Directions for the guidance of Patients in the Self-Treatment of the above Diseases are enclosed with each Bottle.

Sold in bottles at 4s. 6d. and 1ls. by all Chemists throughout the World.

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TRADE MARK
REGISTERED
OVER ALL THE
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Numbers have been cured after leaving various London Hospitals as incurable, or curable only by amputation. Photographs of Cases Cured, neatly framed for exhibition, Transparencies, Bills with Name, &c., forwarded direct or through any Wholesale House.

Plenty of Advertising Matter supplied to Chemists willing to push the sale.

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The Ointment is put up in air-tight grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout wooden boxes, and also retain their virtue for years. Prices, 1s. 1½d., 2s. 9d., 4s. 6d., 1s., and 22s each. Usual Wholesale Terms.

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SINGLETON'S
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KNOWN REMEDY
FOR ALL DISORDERS OF THE
EYES AND EYELIDS.
GOLDEN EYE REPUTATION
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Recommended and frequently used by DR. WARE, DR. ALEXANDER, MR. CRITCHETT, and other Eminent Oculists.

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Every Chemist should put up SYR. HYPOPHOSPH. CO., and push it as the most modern form of "Chemical Food" and "Quinine Tonic."

YEATMAN'S SYR. HYPOPHOSPH. COMP.

Is the STRONGEST and MOST ELEGANT Syrup yet offered.

ONLY CHEMISTS ARE SUPPLIED.

It contains in each fluid drachm—	
Hypophosphite of Lime	1 gr.
" , Soda	2 grs.
" , Potassa	1 gr.
" , Iron (Protoxide).....	1 gr.
" , Manganese.....	1 gr.
" , Quinine	1 gr.
" , Strychnine	50 gr.
SLIGHTLY ALKALINE.	

The composition may be varied to suit buyers. Mixed with an equal bulk of Syrup it possesses the average strength of the advertised Syrups. As HYPOPHOSPHITE, and OT Pyrophosphate of Iron, is used in this preparation, an inelegant precipitate occurs

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E. BURGESS' LION OINTMENT AND PILLS

Cure the worst and most obstinate cases of Ulcers, Abscesses, Cancers, Tumours, Polyps, Carbuncles, Piles, Poisoned Wounds of all kinds (including Dog and enormous bites), and every form of Eruption and Skin Disease; also Ulcerated Cancers.

Affections peculiar to Females, without the aid of Lancet or Ke.

Numbers have been cured after leaving various London Hospitals as incurable, or curable only by amputation. Photographs of Cases Cured, neatly framed for exhibition, Transparencies, Bills with Name, &c., forwarded direct or through any Wholesale House.

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The Ointment is put up in air-tight grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout wooden boxes, and also retain their virtue for years. Prices, 1s. 1½d., 2s. 9d., 4s. 6d., 1s., and 22s each. Usual Wholesale Terms.

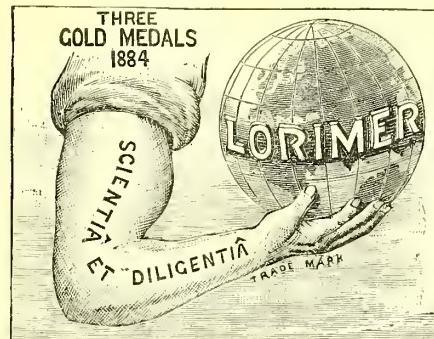
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G1 Medal, London.



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Imperial Quarts, Six to the Gallon, 6s. 6d. per dozen, net,

For QUANTITIES OF ONE GROSS, WITH CHEMIST'S OWN NAME AND ADDRESS ON LABEL.
Quali guaranteed to be the finest, from finest ripe West Indian Lime Fruit. Free from all musty flavour, and bright and sparkling.

CITRATE OF MAGNESIA.

SPECIAL QUOTATIONS ON APPLICATION.

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Messrs LORIMER & Co.
GENTLEMEN,—We have pleasure in informing you that having tried the Citrate of Magnesia of all the make that have been offered to us, taking Bishop's as a standard, we find yours to be the only one comparing favourably with the same, and that it quite equals, if not surpasses it.

Yours truly,

HEADLAND & COMPY., CHEMISTS.

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From the time Medicine was first discovered by the Ancients down to the present none ever made such progress as

BEECHAM'S PILLS.



They stand without a rival, and have by far the largest sale of any Patent Medicine in the World. This is a fact which every business man is bound to admit.

All Foreign Dealers will find BEECHAM'S PILLS the most Saleable Medicine in the Market.

The health-restoring and life-giving properties of these Pills are such as to increase their demand ever year.

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Prepared only and sold by the Proprietor, THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND, in boxes at 1s. 1½d. and 2s. 9d. each, with full instructions for use.

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HOP BITTERS COMPANY

(LIMITED)

Have introduced a 2/6 size Bottle,
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Send to your Wholesale Dealer for
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RETAIL PRICES in FUTURE,

2s. 6d. & 4s. 6d.

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		Containing	30	36	48
Casca Sagrada (5 mins.), in round boxes	Per dozen	7/-	In oval screw-cap bottles	—	—
Casto Oil, in square boxes	5/-	Ditto ditto	5/6	—
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Copal, with or without Name, best, in oval boxes	5/9	Ditto ditto	6/6	—
Copal, Flexible, in oval boxes	6/-	Ditto ditto	6/9	9/6
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Copal, Cubeb, and Buchu, in oval boxes	8/-	Ditto ditto	—	10/-
Copal, Cubeb, and Sandal-wood Oil, Flexible, in oval boxes...	17/-	Ditto ditto	17/-	—	25/-
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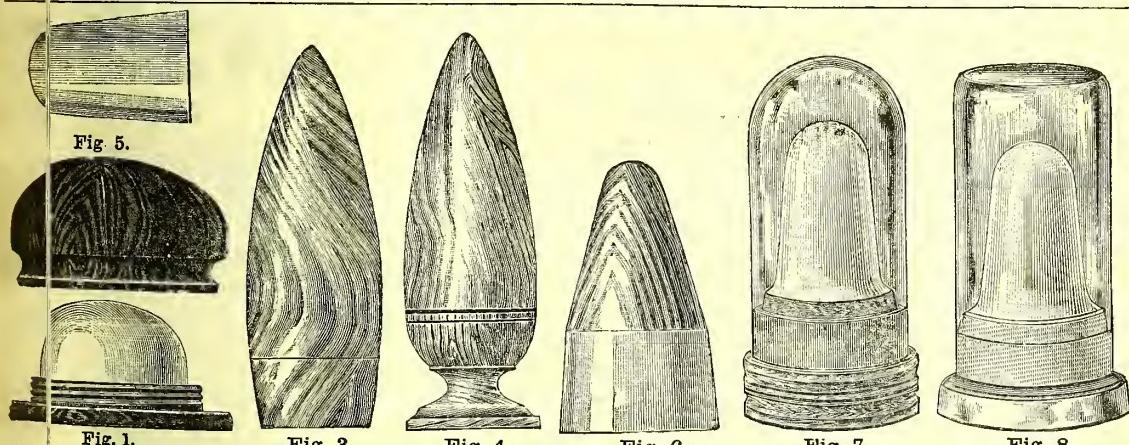


Fig. 1.	In Ebony Cases, flat for the pocket Per doz.	6/-
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Fig. 2. & 4.	In Boxwood Cases, per doz., 2/8 and 4/-; in Vegetable Ivory	"	4/- and 6/-
Fig. 3.	In White Opaque Glass Jars with Red Celluloid Caps	"	2/6 and 3/6
Fig. 5.	Mounted, in Stoppered Bottles	... ... ... ...	... ... ... ...	"	6/6
Fig. 6.	Mounted on Vegetable Ivory, in Glass Bottles, Screw Metal Caps	... ... ... ...	... ... ... ...	"	4/6
Fig. 7.	On Boxwood Mounts, Glass Covers	"	3/6 and 5/9
Fig. 8.	On new Glass Mounts, Glass Covers	Per doz.	3/6, 4/-, 5/6, and 8/-
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AND WILL COMPARE FAVOURABLY WITH
ANY OTHER LIST AS TO
PRICES CHARGED.

POST FREE ON RECEIPT
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Purchasers of Druggists' Sundries, Smelling Bottles, Hair Brushes, Combs, Sponges, Thermometers, Filters, and Boxes of all descriptions should pay a visit to our Showroom before purchasing elsewhere, in order to compare our prices and quality against other houses.

AGENCIES OF ALL KINDS UNDERTAKEN
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Messrs. SANGER & SONS would call special attention to the following SEASONABLE SPECIALITIES, and beg to solicit a trial order.

TURCO SPONGE FLESH GLOVES,

Per dozen, 3/-, 4/-, 4/6, and 5/-
LESS USUAL DISCOUNT.

6 dozen assorted, in handsome glass-top Box, free, or 3 dozen at an extra charge of 6d.

LOOPHAS

Good Quality and Value, at 3/-, 4/-, and 8/- per dozen.

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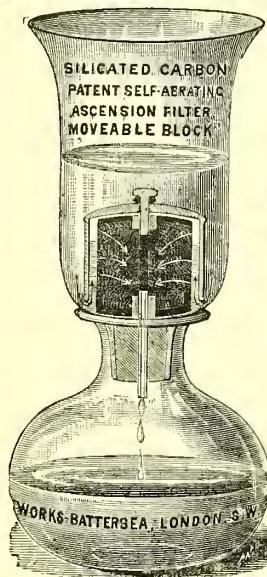
1 oz. 4/6 per dozen; 2 oz. 8/- per dozen.

A LARGE and VARIED ASSORTMENT of SPONGES always IN STOCK. Inspection solicited, or write for samples before ordering elsewhere.

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LEAD POISONING

LIBERAL DISCOUNT TO THE TRADE.



Glass Table Filters.

So commonly the result of Drinking Unfiltered Water is rendered
IMPOSSIBLE
BY USING
SILICATED CARBON
FILTERS
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Through which no particle of Lead can pass. This fact is attested by the leading analysts of the day.

"The most remarkable property of the Silicated Carbon Filter appears when its filtering power is tested in the removal of Lead from solution . . . I wish to dwell with the utmost emphasis upon the value of these Filters for removing Lead."

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The Silicated Carbon Block can be Instantly Removed, leaving the whole of the Filter Open for Inspection and Cleansing.



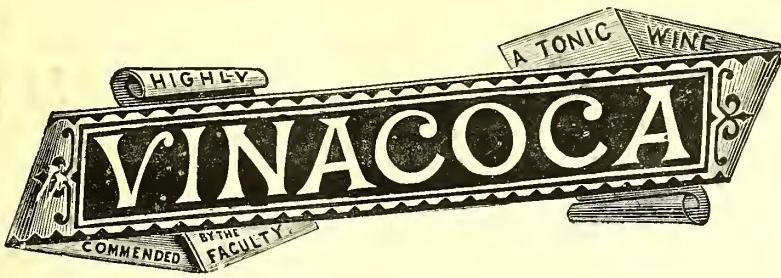
Domestic Filters.

FOR PRICES AND FULL PARTICULARS, WRITE TO THE
SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.

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Tonic Wine

Tonic Wine

**Licensed by Her Majesty's Government.***Embracing the Therapeutic properties of the Coca Plant, blended with the best Madeira.*

England, medical men prescribe its use in preference to Quinine, or any Bark Wine. It may be used with safety at all times, and for any length of time, without injury to the gastric membrane. It may be taken in place of Liquors and Dessert wines, which it certainly surpasses in flavour. *It is a direct stimulant of the most active kind, supporting life in a manner most miraculous, without disturbance of the vital functions.* For the voice, a wineglassful before any ordeal is sufficient. Its effect upon the vocal chords is surprising, and of great value to Public Speakers, Professional and other Singers, and Lecturers.

Sold in Bottles, 40s. per dozen Retail.

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COCOA TOBACCO AND CIGARETTES.

SUPREMELY DELICIOUS! MOST EXQUISITE AROMA!

ABSOLUTELY FREE FROM NICOTINE.*Licensed by Her Majesty's Government.*

Friehmelt's
COCOA
and
cigarettes
Robaccos.

THE above preparation of Dr. NACHTIGAL, M.D., is pronounced by the members of the Medical Profession to be a stimulant, tonic, and restorative to the system. In the shape of Tobacco and Cigarettes the smoke difficulty is overcome—all may enjoy their smoke with benefit to health. Any amount of muscular labour and mental exertion may be undertaken without the usual fatigue by those who smoke the above. It is much used by Bicyclists and Athletes generally, and all speak most favourably of it. From the Report of the Bavarian Army Corps, the officers and men of which used it during their severe labours in the heat of June and July, it is spoken of in the most flattering terms of satisfaction and commendation in every way, and as highly beneficial to the men who used it when on night service.

THE CHEMIST AND DRUGGIST (January 29th, 1888) says:—Tobacco smoking is so universal nowadays that some people regard it as a necessity rather than a luxury. If there are two opinions as to that, there cannot be regarding the fact that tobacco, even when smoked in moderation, does an infinite amount of harm to boys and adults who are not of robust habits; if used in excess by anybody bad results assuredly follow. Various substitutes for tobacco have been introduced from time to time, but with little success because of their "brown-papery" taste and non-satisfying results. This, however, will not, we think, be the verdict regarding the coca tobacco invented by Dr. Nachtigal, of Stuttgart; first, because of its appearance, which reminds "York River" very closely; second, because of its pleasant taste, and, lastly, because the smoker feels that he has had a smoke after a pipful of it. The same applies to the cigarettes. The coca tobacco does not contain nicotine, and depends for its invigorating properties upon the coca leaf. Tobacco and cigarettes are being introduced in this country as a specialty saleable by chemists, and they are sure to sell readily. The French

Hygiene Society, 56 Conduit Street, W., are the consignees,

Inventor—Dr. NACHTIGAL, M.D. (late Staff-Surgeon German Army).

Sole Licensed Manufacturer—Mr. OSCAR FRIEHMELT.

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PRICES REDUCED.

CIGARETTES, Sanitary, fully charged with Coca	2/-	per packet of 20.
" " " "	8/-	100.
" No. 1, moderately charged with Coca.....	£3 6/8	per 1,000.
" No. 2, mildly charged with Coca	2/-	per packet of 20; 8/- per 100.
" No. 2, mildly charged with Coca	£3 6/8	per 1,000.
No. 1.—Mild " Smoking "	1/6	per packet of 20; 6/- per 100.
No. 1.—Mild " Smoking "	£2 12/8	per 1,000.
No. 2.—Strong Smoking Mixture, 12/- per lb.		
No. 2.—Strong Smoking Mixture, 12/- per lb.		

THE FRENCH HYGIENIC SOCIETY, 56 CONDUIT STREET, REGENT STREET, LONDON,
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In the above can be obtained through Messrs. Kemp & Co. (Lim.), Bombay, or direct from the Consignees, the French Hygienic Society, 56 Conduit Street, Regent Street, London, upon receipt of a full remittance.



EXTRAORDINARY CHEAP LINE!!!

THE WATCH SMELLING-SALT BOTTLE

PLAIN OR FLUTED.

These Bottles are fitted with BEST SCREW NICKEL CAPS, lined with Wash, and are the most wonderful value ever offered. A trial order will prove this.

PRICE, IN BEST WHITE FLINT OR ASSORTED COLOURS, **12/6** PER GROSS in not less than 12 lots

Orders may be sent through any of the Wholesale Houses, or direct to

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The annexed Illustration shows exact size of above-mentioned Bottles

GREAT REDUCTION IN PRICE OF GLASS BOTTLES, SYPHONS ETC.

ESTABLISHED TWENTY-FIVE YEARS.

ROUND SHOULDER OR LINE JUICE BOTTLES.
1 2 3 4 6 8 10 12 16 20 oz.
2/9 3 3 4 6 6/ 6 6 7 6 8 6 14/ 15/ 20/ 22/ per gross

VIALS (Long, Medium, or Short Series).
1 oz., 2/8; 1 oz., 3/8; 2 oz., 4.6 gross. Good quality.

KALI (CONFECTIONER'S) BOTTLES.
4 6 8 10 12 20 oz.
6/ 7/ 9/ 14/ 17/ 24/ gross.

GLASS SYRINES (Best Quality).
4 oz., 14/ ; 6 oz., 18/ ; 1 oz., 27/ ; 2 oz., 49/ gross.

All and every kind of Bottle made, and prices given
for any particular pattern.

BEST WHITE FLINT OVAL DISPENSING OR
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2 3 4 6 8 oz.
6/ 7/ 8/6 9.6 10.6 per gross.

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PILL BOTTLES (Metal Screw Caps).

4 oz., 9/ ; 1 oz., 10/ ; 2 oz., 13/ ; 3 oz., 16/ gross.

POMADE BOTTLES (Metal Screw Caps).

1 oz., 11/ ; 2 oz., 14 6. 3 oz., 15/ ; 4 oz., 21/ gross.

Our Metallic Capsules are superior to anything

in the Market.

[SPECIAL PRICES ON APPLICATION.]

SYPHONS: Block Tin Mounts, best in the trade, 19/ doz. f.o.b. Antwerp.

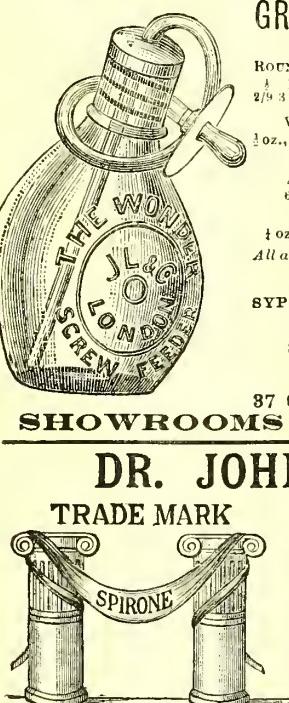
SELTZOGENES: 5 pint, 14/ each.

WONDERFUL PRICES.

SCREW FEEDING BOTTLES, Black Fittings complete, 10 gross lots, 30. per gross, open or in Cases.

J. LANG & CO., Glass Works, Alsace and Lorraine.

37 Quai Flamand, ANTWERP; and 28 Rue Notre Dame de Nazareth, PARIS.
SHOWROOMS AT 82 HATTON GARDEN, LONDON. I.C.



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TRADE MARK.

FOR THE TREATMENT AND CURE OF ALL

DISEASES OF THE LUNGS, WINDPIPE, NOSE, AND THROAT,

Claims to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in

COUGHS AND COLDS, ASTHMA, BRONCHITIS,

Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

None Genuine except such as bears the above Trade Mark “SPIRONE” and the Signature of the Inventor upon the Bottle
on the Label over the Cork, and on the Wrapper.

JOHN FRANCIS CHURCHILL, M.D. (Paris),
The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites.

Price 4s. 6d. and 11s. per Bottle.

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

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Catalogues and Price Lists
sent free on application.

MINERAL WATER,
WINE, SPIRIT,
BEER,
CONFECTIONERY
BOTTLES.

Correspondence cordially invited. Quotations & Samples sent by return.

SYPHONS.

In Azure Blue, Green, or Amber
Glass,

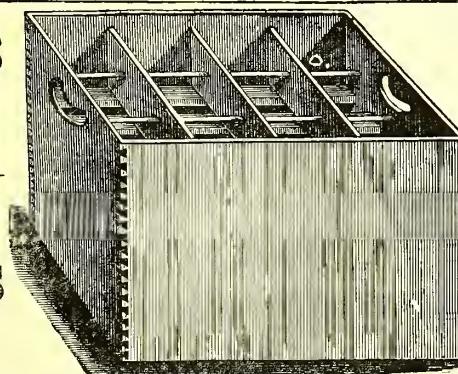
In White or Blue Glass.



COCKS & STOPPERS
IN
EMLESS VARIETY.

OUR LEDGE
MOUTH BOTTLES
ARE THE BEST.

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United Telephone No.
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Catalogues and Price Lists
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Having all the Latest Improvements for the Production of Bottles,
Cases, &c., can offer all Kinds, Shapes, Sizes,



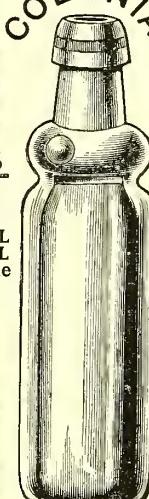
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That our
BOTTLES are the
BEST VALUE
is SELF-EVIDENT
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Round or Oval, Long or Short
Levers,

Bright Metal or Silver-plated Tops.

VAN BOX CASES,
TRAYS, ETC.

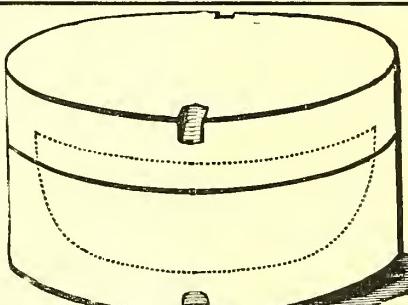
OUR CODD'S
BOTTLES
ARE THE BEST.

WILLIAM TOOGOOD'S SPECIALITIES.

WAREHOUSE AND SHOW ROOM,
BURLINGTON BUILDINGS,
HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S
IMPROVED PATENT
**EARTHENWARE
COVERED POTS**

*Are claimed to be the most perfect
and convenient yet offered to the Trade.*



ORDINARY THICKNESS—

1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8	ounces,
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{2}$	$\frac{2}{10}$	$\frac{3}{4}$	$\frac{4}{6}$	$\frac{5}{6}$	per doz.

THIN for DISPENSING—

$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8	ounces.
$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{7}$	$\frac{2}{4}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{5}{6}$	$\frac{6}{6}$	per doz.

TOOGOOD'S
BURNT - IN POTS,
FOR COLD CREAM, TOOTH PASTE, &c.

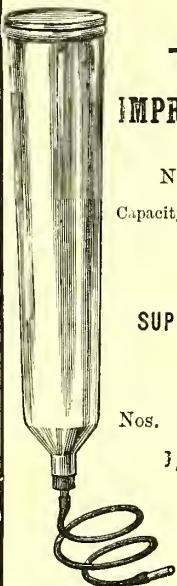
TOOGOOD'S
GRADUATED MEASURES.

TOOGOOD'S
BOXWOOD-TOP CORK BOTTLES

TOOGOOD'S
MEXICAN SQUARES.

TOOGOOD'S
CORN-SOLVENT BOTTLE.

TOOGOOD'S
POISON BOTTLES.



TOOGOOD'S
IMPROVED PERCOLATORS.

Nos. 1	2	3	4	5
Capacity	12	25	66	100

160 ozs.
2/- 3/- 4/- 6/- 7/- each

SUPPORTS FOR ABOVE IN
STAINED WOOD.

Nos. 1	2	3	4	5
3/-	2/-	3/-	3/-	3/-

6/- 7/- each.

NORMA'S
PATENT PILL COATER



AUSTRALIAN AGENCY AND SAMPLE ROOM:
Mr. A. I. JOSEPH, 250 Pitt Street, Sydney. | Telegraphic Address: "TOOGOOD LONDON."
Telephone No. 3834.

William Toogood's Price Current of Glass Bottles, Measures, Earthenware, Druggists' Supplies, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.

R. H. BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c.

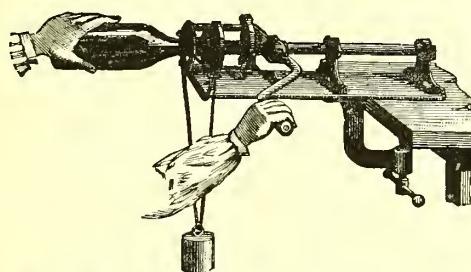
Prices—2 oz. 21/-, 3 oz. 24/-, 4 oz. 28/- per gross.

Cheists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

R. H. BARRETT,
FLINT GLASS BOTTLE WORKS,
THE OVAL, CAMBRIDGE HEATH, LONDON, E.
Telegraphic Address—"FOREFRONT LONDON." [2]

NEW CAPSULING MACHINE

The only Machine
which leaves no crease
or pleat on the
Capsule.

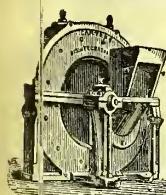


Can be fixed to any Counter.
A single pull of the lever is sufficient to fix the Capsule.

Paentee—C. MELIN, 37 Crutched Friars, LONDON, E.C.

CARTER'S DISINTEGRATORS

Will Pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.



NEARLY 1,100 IN USE

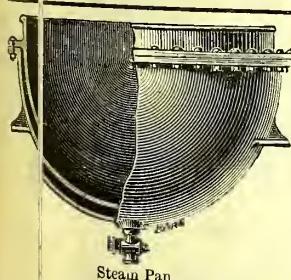
IN ALL PARTS OF THE WORLD.

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable. Made in 9 Sizes. Illustrated Catalogue may be obtained on application.

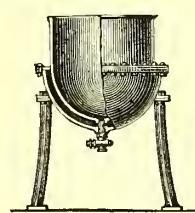
Samples of ANY Material will be Ground free of charge.

J. HARRISON CARTER, 82 MARK LANE, LONDON; and PARIS.

Telegraphic Address—Milling London.



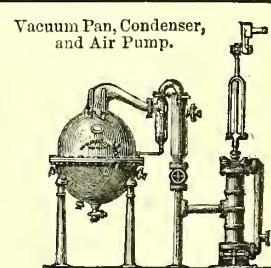
Steam Pan



Steam Pan.



Tilting Pan.



Vacuum Pan, Condenser,
and Air Pump.

MANUFACTURERS OF
Crushing and Grinding Machinery.
Boiling and Evaporating Machinery.
Paint and White Lead Machinery.
Foil Preserving Machinery.
Fruit Preserving Machinery.

BRINJES & GOODWIN,
FIELDGATE ST., LONDON, E.
ESTABLISHED 1829.

**PURE
SPIRITS OF WINE.**

60 o.p., 20/3 per gall.; 56 o.p., 19/9 per gall.

1/- per Gall. Discount for Cash with order.

Further allowance for quantity. STEAM STILLS ONLY.

**GEORGE PHILLIPS & CO.,
ST. ANDREW'S DISTILLERY, CLERKENWELL RD.
LONDON, E.C.**

**W. H. B. REFINED } BEESWAX.
W. H. B. WHITE }**

Bernard Dyer,
B.Sc. (Lond.), F.C.S., F.I.C., Analytical
Consulting Chemist.

London, E.C., Nov. 25, 1886.

I have analysed a cake of Wax stamped
W.H.B. sent to me by a London House
on behalf of Messrs. W. H. Bowdlear &
Co., of Boston, Mass., U.S.A. It consists
of pure bleached beeswax unmixed with
paraffine, fat, or other of the various
materials with which beeswax, and
especially white wax, is commonly adulterated.

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Member of the Society of Public Analysts.

CABLE ADDRESS—"BOWDLEAR BOSTON."

**W. H. BOWDLEAR & CO.,
147 Pearl Street, BOSTON, MASS., U.S.A.**

**BOORD & SON,
RECTIFYING DISTILLERS & WINE MERCHANTS,**

ALLHALLOWS LANE
and
BARTHOLOMEW CLOSE, } LONDON, E.C.,

OFFER LOWEST QUOTATIONS, ON APPLICATION, FOR

FINEST RECTIFIED SPIRITS OF WINE

Methylated Spirit and Finish; Finest Orange Wine, Sherris,
and Malagas for Medicated Wines.

**THE ORIGINAL GENUINE
EAST INDIA OIL OF MUSTARD SEED**

Is strongly recommended as a safe and effectual remedy in cases of
RHEUMATISM, GOUT, RHEUMATIC GOUT, SCIATICA, LUMBAGO, HEADACHE, PAINS IN THE
STOMACH, SPASMS, BRUISES, CHILBLAINS, &c.

RETAIL IN BOTTLES, 1s. EACH.

Imported by J. H. & S. JOHNSON, Wholesale Druggists, 6, 8, and 10 WHITECHAPEL, LIVERPOOL.

Wholesale Agents: London—Newbery & Sons, and Bourne. Johnson & Latner.

**NELL'S
PURE CRUSHED LINSEED.**

Linseed of the very finest quality only used, and sold at lowest wholesale prices.

For Samples and
Quotations write to

R. J. NELL,

SEED CRUSHING MILLS,

LOUTH, LINCOLNSHIRE.



GOVERNMENT DISINFECTANT



CARBOLIC POWDER (PINK) in 1 Cwt. 2 Cwt. CASKS 1lb & $\frac{1}{2}$ Packages.

CARBOLIC POWDER (PINK) in TINS 6d & 1/- STOPPED BOTTLES

CARBOLIC SOAP N° 1 & N° 2 CARBOLIC & GLYCERINE SOAP in $\frac{1}{4}$ lb TABS

FREE FROM POISON REEABLE IN SMELL.

THE GOVERNMENT SANITARY CO., LONDON E.

TO BE HAD FROM ALL WHOLESALE DRUGGISTS

PINE'S DEVONSHIRE OILS

PRICE

dozen, 13/6	Per doz. net in Wine Bottles.
" 12/6	CARRIAGE PAID.
" 11/6	Single Sample
" 10/6	Bottle, 1/9.

FOR HORSES, COWS, SHEEP, AND LAMBS.

THESE CATTLE OILS are prepared from the Original and Valuable Recipe of WILLIAM YOUTATT PINE, and are unsurpassed, their great sale being a sufficient guarantee of their EXCELLENCE.

PREPARED AND SOLD WHOLESALE BY

WALTER GREGORY, 31 Fore Street, WELLINGTON, SOMERSET.

BURROUGH'S
Spiritus Rectificatus, P.B.
SPIRITS OF WINE

galls. 58 o.p. st.
19/1 Cash.
the BEST English Grain Spirits.
Free from Foul Oil.
Special Quantities
Chemically Pure.

ORANGE WINE,
MEDICINAL SHERRY.

AT LOWER PRICES.
JAMES BURROUGH,
LONDON, S.W.

G. VOGT, WHOLESALE & EXPORT DRUGGIST,

12 LAURENCE POUNTNEY LANE, CANNON STREET, E.C.

nest French and English Drawn Essential Oils.—Insect Powder, guaranteed from closed flowers (Nine Prize Medals).—uit Essences.—Ethers.—Rose, Orange, and Elder Flower Waters.—Triple Extracts and Pomades.—Gums of all kinds.—Hypophosphites—and all other Chemicals.

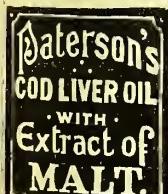
DETAILED PRICE LISTS ON APPLICATION.

SUPPLIED TO THE INFIRMARIES

A CAREFULLY PREPARED EMULSION OF

PUREST COD LIVER OIL

WITH MALT EXTRACT.



Pronounced by leading Physicians to be the most valuable form of Cod Liver Oil ever produced. It is pleasant to take, and has no fishy smell or taste. There is no nausea experienced and it is greatly relished by Children and Invalids.

This valuable combination forms a

HIGHLY NUTRITIOUS FOOD.

It is many times more strengthening than any other form of Cod Liver Oil, and is simply invaluable for bringing the system up to par in all cases of Consumption and Wasting Diseases and General Debility.

The moderate price—

s. 6d., 2s., and 3s. per Bottle, brings it within the reach of all.

GUARANTEED PURE.

PATERSON'S MANUFACTURING CO., LIM.

Manufacturing Chemists,

GLASGOW and LONDON.

Head Office: 12 BROOMIELAW, GLASGOW.

Steiner's Vermin Paste

For destroying Rats, Cockroaches, &c.
3d., 6d., and 1s. Glass Jars; 2s. 6d. Tins. Warranted to keep for Export.

Steiner's Vermin Killer

FOR DESTROYING MICE. 1d., 3d., 6d., and 1s. Packets.

Steiner's Insect Powder

PRIME DALMATIAN. The most energetic insecticide. Kills Bugs, Fleas, and all offensive Insects. Quite Harmless to Domestic Animals. 1d., 3d., 6d., and 1s. Tins. Also in 7-lb. Tins and in Kegs of 120 lbs.

STEINER & CO.
ARE SOLE PROPRIETORS AND MANUFACTURERS OF

James's Phosphor Paste

1d., 3d., 6d., and 1s. Glass Jars.

May be obtained through all the Wholesale Houses, or direct from
THE WORKS, HENRY STREET, LIMEHOUSE, LONDON.

CONSTIPATION.
DAHL'S DYSPEPSIA CAKES.

PANIS DIETETICUS.

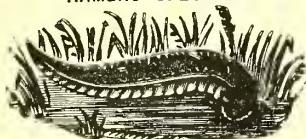
NATURAL REMEDY FOR INDIGESTION AND CONSTIPATION.
Recommended by several leading Medical Men.

2/6, 1/- BOXES.

FOR TERMS APPLY TO WHOLESALE HOUSES.

DAHL'S AGENCY:-41 EASTCHEAP, LONDON.

HAM BRO SPECKLED.

**LEECHES!**Warranted Healthy. Wholesale
and for Exportation. Direct
from Marshes.

FITCH & NOTTINGHAM,

LEECH BREEDERS,
4 CANONBURY SQUARE, LONDON, N.

TRADE MARK

REGISTERED.

All Orders by Post receive immediate attention.

HOLLOWAY'S PILLS & OINTMENT

Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor HOLLOWAY'S Establishment,

78 New Oxford St. (late 533 Oxford St.), London,

And sold at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box or Pot.

Chemists and Druggists selling "Holloway's Pills and Ointment" can on application to the above address, or to the Wholesale House with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

ANILINE DYES

TO SUIT ALL TRADES.

**BEST SPIRIT BLACK
IN THE MARKET.**Mahogany Stain
Ebony Stain
Oak Stain
Walnut-
Stain.

PRONK, DAVIS & CO.,
 3 TRINITY PLACE,
 TOWER HILL, LONDON, E.C.
 COLORS.
 CHEMICALS.
 INDIGO PASTE.
 CUDBEAR.
 I. DYEWOOD EXTRACTS.
 RONZE Powders & Metal Leaf.

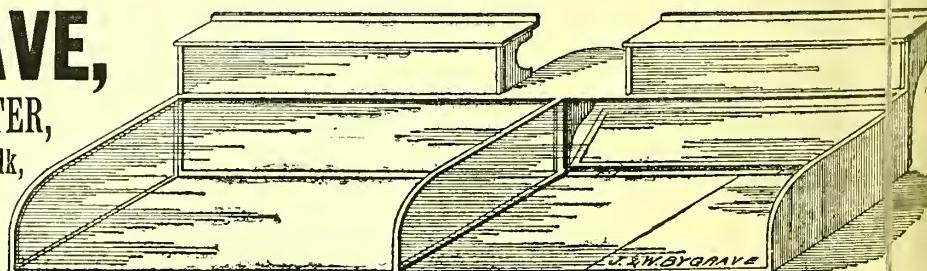
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111 Shepherdess Walk,

CITY ROAD,

LONDON, N.



Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—if 5 ft. long, 18 in. wide, 8 in. high (total height 13 in.), £5 10s.; 5 per cent. off for cash.

SULPHATE OF QUININE

(GOLD AND SILVER BRAND)

QUININE FACTORY AUERBACH

(DR. SEYFERTH).

Certified by Professor Fresenius, of Wiesbaden, as
equal to the best preparations of other manufacturers.**DEUTSCHE GOLD AND SILVER
SCHEIDE ANSTALT**

(VORMALS ROSSLER),

FRANKFORT - ON - MAIN.CYANIDE OF POTASSIUM,
IODIDE OF POTASSIUM,
BROMIDE OF POTASSIUM,
NITRATE OF SILVER,
CHLORIDE OF GOLD,
SULPHOCYANIDE OF BARIUM,IRON Reduced by HYDROGEN,
TARTARIC ACID,
HYDROCHINON,
STRONTIA,
MAGNESIA, and ALLOOTHER
CHEMICALS for
PHOTOGRAPHIC and PHARMACEUTICAL PURPOSES of the
Best Quality.Sole Agents—**OSCAR ANDREAE & CO.**

26 Great Tower Street, LONDON, E.

THE BEST BOTTLES AT THE LOWEST PRICES.**H. & CO. BRAND.****THE
ISLINGTON GLASS BOTTLE CO.**

(H. HARRIS & CO., Proprietors)

153 UPPER THAMES ST., CITY, LONDON, E.C.

HAVE REDUCED THEIR PRICES AS FOLLOWS

3 and 4 oz., 6/6 per gross; 6 and 8 oz., 7/6 per gross; 12 oz., 1/- per gross; 1/- per gross; 1½ oz., 4/6 per gross; 2 oz., 5/- per gross; Feeding Bottles, The National, Black Fittings and Screw Stoppers, 3/6 per dozen, or 40/- per gross.

Prompt attention to Country Orders. A Sample Bottle of any kind forwarded free on application.

Established 50 years.

Bankers—London and Westminster.

POROUS PLASTERS

(STRENGTHENING, BELLADONNA,
AND ALL KINDS.)

ADHESIVE, BELLADONNA, MUSTARD, CORN, AND ALL OTHER PLASTERS.

Prepare for all Climates by **A. DE ST. DALMAS, LEICESTER,** Maker to the British Government and the Hospitals

THE SURGEONS' LINT,

V.B. QUALITY.

The superior quality of NEWSOME'S ABSORBENT SURGEONS' LINT is universally admitted.

The V.B. Quality is quite pure and of great superficial area and exquisite softness.

The C., D., E., and F. Qualities are equally pure and absorbent; E. is stronger in fabric.

Newson's Bleached Rolled Bandages, 3 in., 2½ in., 2 in. Also Surgical Absorbent Open Bandages.

*Specially Bleached and Grey Carded Cotton Wools, Absorbent and Bleached and Grey Waddings;
also Sheet Waddings, Tow, &c.*

THE TRADE SUPPLIED THROUGH THE LONDON AND PROVINCIAL WHOLESALE HOUSES, OR FROM

C. NEWSOME, Spinner and Manufacturer, Jersey Street Mills, Ancoats, **MANCHESTER.**
London Agents: B. PRATT & CO., Wood Street, E.C.
Telegraphic Address—“Newsome, Ancoats,” Manchester.

LINT.

GAMEE TISSUE.

(PATENT ABSORBENT GAUZE AND
COTTON WOOL.)

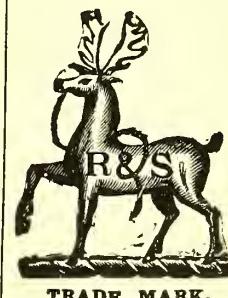
ABSORBENT COTTON WOOL.

ROLLED BANDAGES.

ROBINSON & SONS,
COTTON SPINNERS AND MANUFACTURERS OF
SURGEONS' LINTS, COTTON WOOLS,
AND BANDAGES,

WHEAT BRIDGE MILLS,
NEAR CHESTERFIELD.

Depot—55 Fann Street, Aldersgate Street, London.



HAYWOOD'S PATENT SURGICAL APPLIANCES.

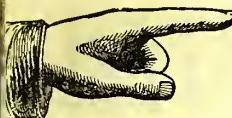
STOCKINGS, SOCKS, LEGGINGS, &c.,
MADE ON ENTIRELY NEW PRINCIPLES.

WINTER APPLIANCES. — Chest Protectors. — Felt, Knitted, Fleecy Chamois Vests, Drawers, &c.—Socks for Boots.—Straw, Magnetic, &c., for Rheumatics, in Wool. Eel Skin, &c., Belts, Cuffs, Respirators, Inhalers, Bronchitis Kettles, Sprays, Hot Water Bottle Covers, Stomach Warmers, Magnetic Belts, &c. Waterproof Coats, &c. Shin Guards. Lists on application.



J. H. HAYWOOD, CASTLE GATE, NOTTINGHAM.

INDEX TO ADVERTISEMENTS, See pages 21—23.



**ARMBRECHT'S
COCA WINE.**

AGENTS APPOINTED.
DUKE ST., GROSVENOR SQUARE.

**BENNETT & JENNER,
STRATFORD, LONDON,**

MANUFACTURERS OF

Hydrogen Peroxide, 10 to 20 Vol., Commercial and Pure; Caramel (Burnt Sugar), Solid and Liquid; Sulphurous Acid; Sulphites and Bisulphites; Iron Sulphate, Pure, and all Iron Salts; Calcium Chloride, Pure, Cryst., and Fused. Importers of Carmine and Phosphoric Acid.

LINT.



LIVERPOOL PATENT LINT CO.
MARK STREET MILLS,
NETHERFIELD ROAD NORTH,
LIVERPOOL.

See Advertisement.

FRED^K FINK & CO.,

10 & 11 MINCING LANE, LONDON, E.C.

SPECIALITIES: Glycerine—Gum Arabic—Gum Tragacanth—Pure Beeswax—Honey—Vanilloes.

**KERNICK'S
LIME JUICE CORDIAL**
(SWEET OR DRY),
FRUIT SYRUPS ETC.
LIST FREE.
KERNICK & SON, CARDIFF.

WILLOW

PAUL METZ,
2 NEW ZEALAND AVENUE,
LONDON, E.C.

Wholesale Buyers of these goods should write to me for samples and prices before ordering elsewhere.

BOXES

GEORGE HAYNES & CO.

Hampstead Cotton Mills, Cherry Tree Lane, Stockport,

MANUFACTURERS OF

BLEACHED AND ABSORBENT WOOLS,
Grey Wool, Coloured Wools, and Jewellers' Sheets.

WHOLESALE AND EXPORT ONLY.
Telegraphic Address—"HAYNES STOCKPORT."

TO LET.

PATRONISED BY HER MAJESTY.

BARBER'S ORIGINAL
CRIMSON MARKING INK,

WHICH IS CHANGED BY HEAT TO A JET BLACK.

Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.

ALSO

BARBER'S CONCENTRATED LIQUID COCHINEAL

FOR COLOURING JELLIES, CUSTARDS, ETC.

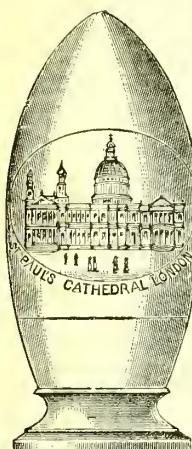
Put up in 6d. and 1s. Bottles.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO., CLUB MOOR, LIVERPOOL.

Can be obtained through any of the Wholesale Firms in Great Britain, or from FELTON, GRIMWADE & CO., Melbourne; ELLIOT BROS., Sydney and Brisbane; KEMPTHORNE, PROSSER & CO., Dunedin and Auckland; FELTON, GRIMWADE & CO., Wellington; or direct from the Manufacturers—G. BARBER & CO., Club Moor, Liverpool, England.

SHIRLEY'S A1 BRAND MENTHOL.



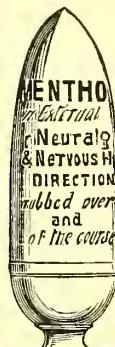
Nos. 14 and 14A.



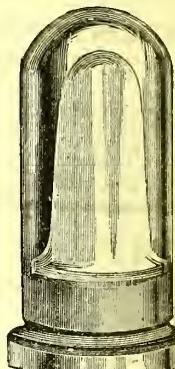
No. 9s.



No. 17L—1s.



Nos. 11 & 11A.

Nos. 21 and 21A.—1s.
Nos. 23 and 23A.—6d

ORDER AS A1 BRAND.

A NOVELTY.

Styles 11A and 14A can be had with views of London on, without extra charge. When ordering please say "with views."

SPECIAL PRICES to LARGE BUYERS.

CHEMIST'S own name printed on back of the boxes without extra charge, provided a gross is ordered.

THIS IS A FINE ADVERTISEMENT.

A Dummy Cone given free with all orders of 20s., or two if 30s. order is placed.

No.	Description.	Price per doz.
13A 1s.	Vegetable Ivory, 12 in a box, Acorn Shape	4
14 1s.	Pyramid Shape, each in a box	6
14A 1s.	Ditto 12 in a box	6
14L 1s. or 1/6 Ditto	extra-sized Cone, 12 in a box	7
15 6d.	Cardboard Case, 12 in a box	3
17L 1s.	Draughtsman Shape, Boxwood only, extra large	6
17 1s.	Ditto Ebony only	6
17s 6d.	Ditto Boxwood	4
18 1s.	Combination Pincushion and Menthol	7
19 6d.	Boxwood, Egg Shape, on elegant Card	3
20 1s.	Smelling Bottle Menthol	7
21 1s.	Menthol on Boxwood stopper, covered with glass shade, very attractive, each in a box	6
21A 1s.	Ditto 12 in a box	6
23 6d.	Ditto each in a box	4
23A 6d.	Ditto 12 in a box	3
24 6d.	Boxwood, Bottle Shape, very attractive	3

No.	Description.	Price per doz.
1 6d.	Glass Bottles with Metal Screw Cap	3 3
1B 6d.	Blue Ditto Ditto	3 4
2 6d.	Willow Wood, 11d serving as holder	3 0
2B 6d.	Ditto, Barrel Shape	3 3
3 9d.	Glass Bottles, with Metal Screw Cap	5 0
4 1s. Do.	Do. Do. (Menthol on Wood Mount)	6 0
5 1s. Do.	Do. Do. (Bullet Cone wrapped in tinfoil)	6 0
6 9d.	Boxwood Pedestal Shape	5 0
7 9d. or 1s.	Do. Barrel Shape	6 0
8 9d. or 1s.	Do. Acorn Shape	6 0
9 9d. or 1s.	Do. Skittle Shape	6 0
9A 1s. or 1/6 Do.	Do.	7 6
9C 1/6 or 2s.	Do. Do.	9 6
9s 6d. or 9d. good value, Do.	.....	4 0

(A very cheap line.)

10 6d.	Oblong Willow Boxes, 12 on a Card	3 6
11 6d.	Boxwood Pedestal, each in a box	4 0
11A 6d.	Ditto 12 in a box	3 6

SHIRLEY'S 2nd QUALITY, PUT UP FOR THOSE WHO WANT CHEAP GOODS.

	Per Dozen	Per Gross
2d. No. 100.—Polished Willow Box	1/5 ...	13/
3d. ,. 101.—Willow Acorn	1/10 ...	17/
3½d. ,. 102.—Boxwood Pedestal	2/4 ...	24/

	Per Dozen	Per Gross
4d. No. 103.—Boxwood Pedestal (large)	2/9 ...	27/
4d. ,. 104.—Barrel shape	2/9 ...	27/
6d. ,. 105.—Button shape	3/4 ...	34/

These prices are net, and the boxes have not the printed directions on them.

FULLER'S EARTH

Attractively put up in cardboard boxes, with label (3 colours).

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THE PERFECTION OF OUR GOODS

an outlay of time and money which forbids our attempting to compete for the "Cheap John" trade, but no other manufacturer can place upon the market goods equal in quality to our own, at as reasonable prices as prevail throughout the line.

WORTHY OF CONSIDERATION

our reputation as originators and organisers of this special branch of pharmaceutical chemistry, which has been adopted by every nation, and which has been imitated and pirated by every so-called competitor and neophyte, down to the last session to their ranks. We have been and shall continue to be aggressive. We are jealous of the work created by us, and by which we are identified throughout the world, and therefore will compel manufacturers of goods in our line to respect and maintain the integrity of officinal formulæ, or expose their deficiencies. Competition is wholesome only when based on honourable respect for established standards, especially in Pharmacy. The opportunity for making inferior medicated goods is too great, and we shall consistently and persistently expose those who manufacture goods that belie the label.

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LOOFAH

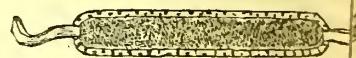
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Elste's Loofah Bath Belts, 13s. 6d. and 14s. 6d. per dozen.

LOOFAH

From THE CHEMIST AND DRUGGIST, December 3, 1887.

THE Loofah, or towel gourd (*Luffa Egyptica*), is indigenous to Egypt and Arabia, but is grown extensively in Western Africa and the West Indies. The plant, a cucurbitaceous one, is a climbing vine which frequently attains a length of thirty feet. It is chiefly remarkable for its ovate fleshy fruit, of which it seldom bears more than a dozen, varying in length from six inches to two feet. This fruit in the fresh state is elliptical ovate, and has a green epidermis marked longitudinally with black lines. It is the close vascular network of this fruit, freed from the epidermis, pulp, and seeds, which forms the loofah, so familiar to chemists for a dozen years or more. The natives of the countries in which the towel gourds grow have long used them as scrubbing brushes and as strainers. To prepare them for these purposes the epidermis is removed, and the peeled fruit then thoroughly washed in water and beaten so as to remove the mucilaginous pulp and the seeds. Although loofahs have long been used by natives for washing purposes, we have heard it said that their introduction into this country for similar purposes was a mere accident. A consignment of them was received here, but no one knew what they were for. They ultimately got into the hands of a merchant as payment of debt, and he more than repaid himself by selling them as a sponge substitute for the bath. When the stock was exhausted several years elapsed before another supply was received—indeed, on this occasion they were placed on the market as a perfect novelty. The loofah is imported in the uncut state, our own wholesalers generally giving it the longitudinal incision which makes it a flat and serviceable flesh-brush. The gourd is also used for making fancy toilet articles, which are so highly thought of in the West Indies that a sample (a small basket) was sent to the Queen as a Jubilee present, and was shown in St. James's Palace. Recently the uses of the loofah have been greatly extended by a German manufacturer.

He makes from them loofah soles, which have to a large extent replaced those made of straw and felt. The loofah soles arm the feet in winter and cool them in summer, keeping them instantly dry. They are extremely elastic and easily washed with soap and water. Saddle under-cloths are also made from loofahs, which have the virtue of preventing the animal from remaining wet under the saddle after sweating. But what may be considered the most important application of the loofah is in the manufacture of surgical bandage stuffs, made of this material are competing closely with the wooden kind, which were introduced some time ago. There are unquestionably other uses to which the loofah might be applied, and as enormous quantities are obtainable at a low rate (some bales were a year ago sold in London at the rate of five pence), further applications are only a question of time. The seeds of the loofah contain fixed oil, but this is too small a quantity (25 per cent.) to pay for its extraction. The mucilaginous matter is rich in bassorin that an infusion of the fruit becomes almost solid on cooling. A congener, *Luffa Bindal*, is used in India medicinally as a remedy for carbuncle. For this purpose an infusion of the fruit is used a fomentation, which causes the slough to come out entire. There are other species which are possessed of medicinal properties. The two species, *L. gana* and *L. drastica*—the fruits of which are known as American coloquines—possess powerful purgative properties, as might be expected of cucurbitaceous plants. Several are of a bitter character, e.g., *L. echinata*, an Indian plant, and the fruit-fibre of which, according to Dymock, is intensely bitter, and is used medicinally by the Hindoos. This loofah is quite a tiny nutmeg. As to the use of the ordinary loofah, we find that the uncut kind is much more lasting than the other, although as a flesh-rubber it is not so effective as the interior surface.

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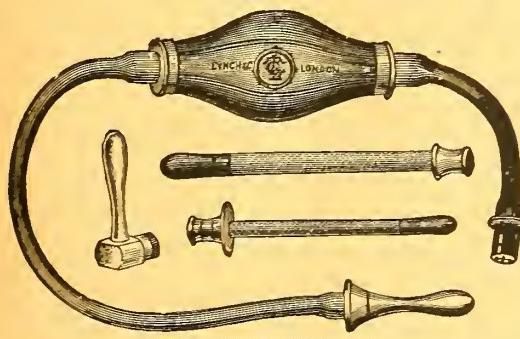
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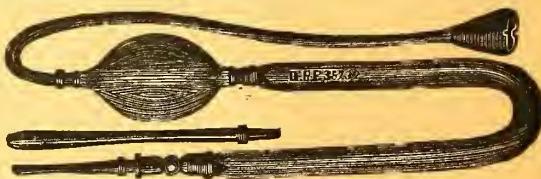
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Situations Wanted.
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ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that they may be sent in as early in the week as possible.

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WANTED, a young man with small capital to take over a good Chemist's Business; capable of great improvement; a nice opportunity for a steady man. For particulars apply, Dr. John Garth, North Road, Preston.

AQUALIFIED Assistant wanted at once for China, having a knowledge of French and of the manufacture of Aerated Waters; first-class experience and highest references indispensable; aged 25 to 30. Apply to Messrs. Dakin Bros., 2 and 3 Creechurh Lane, London, E.C.

JUNIOR Invoice Clerk wanted, who has a knowledge of the Drug Trade; must be a good writer and quick at figures. Apply, by letter only, stating age, experience, &c., Box No. 31/51, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

WILLIAM HESELTINE & SON, Wilson Street, Finsbury, E.C., are open to engage a first-class man to introduce and appoint Chemists as Agents for their Teas; liberal terms to one having necessary qualifications (see full page advertisement appearing in this issue). Apply by letter, as above, in first instance.

ABOUT 27th April.—An experienced Assistant (about 27), accustomed to General country business with Wholesale; he will be required to superintend several apprentices, and travel occasionally; state usual particulars, with references, salary, and enclose photo, if convenient. B. Adams, Proprietor of Adams's Extract of Herbs, Mansfield.

OPPORTUNITY is open for a young Pharmacist of good family to acquire knowledge of German Pharmacy in a principal dispensary in one of the finest towns in Germany; will be expected to speak English with proprietor's son, and to occasionally undertake light business duties; board and residence, but no salary. Apply by letter, Helbing, German Hospital, Dalston.

TO Students.—An Assistant, who thoroughly understands the Chemist's business, is required to give a portion of his time in return for board and lodging without salary, or a Junior or Improver for whole time with small salary; duties very light, and plenty of time for reading. Apply, personally preferred, to Dr. Chandler, 50 Battersea Rise, near Clapham Junction, S.W.

APPRENTICESHIPS.

APPRENTICE wanted, for good-class business; must have passed Preliminary or equivalent examination, and be of good height; moderate premium. Apply to F. Wilde, Brompton Road, S.W.

APPRENTICE.—Wanted to Apprentice two boys, aged 15½ and 17½; both passed Prelim. exam.; state lowest terms and full particulars as to hours, duties, &c. Address, 12 Lynwood Terrace, Lawrence Road, Southsea.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

MANAGER (41); permanency; qualified; single. A. B., 22 Duke Street, Portland Place, W.

ASSISTANTSHIP, or Dispenser; outdoor; good references; London preferred. 5 Campbell Street, Hull.

QUALIFIED Analyst seeks engagement; state salary offered, &c. 11 Esk Terrace, Whitby.

JUNIOR; aged 23; Mixed Business; satisfactory references. A. Grist, Bidboro, Tunbridge Wells.

MANAGER; country preferred; married; aged 32; Minor qualification. "Dentist," Evans & Lescher, London.

OUTDOOR Assistant; aged 21; qualified; good experience and references; disengaged; London or country. "Minor," Cecil Road, Clarendon Park, Leicester.

M R. SMITH, 4 Lodge Street, Bristol, Reg. Chemist, Manager during absence, illness, or branch previous to disposal.

ASSISTANT (21½); references; disengaged in a month. "Saccharine," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PART-TIME.—Board and lodging and experience in lieu of salary; tall; aged 21; outdoors; West Central preferred. "Student," 10 Spital Terrace, Gainsboro', Lincs.

AS Branch Manager or Outdoor Assistant; 7 years' reference; married; no family. B., 6 Arthur Terrace, Woodbridge Road, Ipswich.

ASSISTANT; aged 22; tall; disengaged; retail and dispensing experience; can prescribe; good reference. T., 7 Railway Street, Chatham.

LONDON.—In or outdoor; 5 years' experience; aged 21. Jenkins, 58 Osnaburgh Street, Regent's Park, N.W.

TO Wholesale Druggists, &c.—Engagement wanted as Traveller; now at liberty; 7 years' experience, having represented one house for that period. "Anglo," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BRANCH Manager or otherwise; energetic; experienced; first-class references; unqualified; married; 28 years of age. S., 5 Lewis Villas, Carshalton Road, Sutton, Surrey.

IMPROVER or Junior (21); tall; would be found thoroughly steady and trustworthy; does not object to a mixed business. Address, stating full particulars, X., Mrs. Foheraker, Chapel Street, B. Salterton, Devon.

MANAGER of Branch or Surgeon's Retail, by Registered Chemist; aged 40; married; disengaged; would take temporary duty or part time; good references. "Chemist," 5 Stafford Street, Marylebone Road, N.W.

JUNIOR.—A Provincial Firm can highly recommend their late Apprentice, aged 20; tall, good-class family; retail and dispensing; southern county preferred. "Fides," c/o Messrs. Wright, Layman & Umney, Southwark, London.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

TO INVESTORS.—Fifty £5 shares (50 paid), Henry Lamplough, Limited, proprietors of Pyritic Saline; business established 1707; last three dividends 10 per cent.; 45s. each. Fifty £1 shares Nordenfelt Gun Company, Limited; dividend 1886 and 1887, 27½ per cent.; 2s. each. "Vendor," 12 West Avenue Road, Walthamstow, Essex.

WANTED, a qualified married man, who would accept free rental of four rooms over a Chemist's shop for care of house and a little daily help; situation pleasant, house comfortable; no other residents; an elderly man not objected to. Address, "Mutual," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

OFFERS wanted for seven "Chemist's and Druggist's Diaries," from 1880 to 1886; also an original letter from the late Jacob Bell, 338 Oxford Street, dated March 22, 1848 (on Sept. 26th Nitros., on the vigilance of excise officers in smuggling it into England, its price then, &c.), to a Chemist on the Borders. C. P. W., 2 Bridge Terrace, Fawkirk-on-Tweed.

DENTISTRY.—A dental surgeon of late experience, specially engaged starting practices, will instruct chemists in mechanical or surgical dentistry, qualifying them to add this lucrative branch to pharmacy; a post system to chemists abroad; mechanical work executed; new cases and specimens supplied; terms very moderate. "Dentorium," 42 Stamford Hill, London.

PRELIMINARY AND MINOR.

ALL Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. 12 Pupils passed the last Examinations.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. MINOR.—Equations Simplified, 1s. Illegible Autographic Prescriptions. Notes on Dispensing, 1s. Prescriptions given at the minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

By GEORGE STIRLING.

A Table of Organic Materia Medica.—Presented in tabular form the official or officinal names, botanical or zoological sources and parts, natural orders, habitats, active principles and other constituents, medicinal uses, preparations, &c., of the animal and vegetable materia medica of the British Pharmacopœia, and also of many non-official substances of common use. 1s. free, 1s. id., or in stiff cloth for pocket, 1s. 7d.

Notes on Dispensing, 3rd Edition.—Consisting of hints on the manipulation of mixtures, emulsions, suppositories, &c., with a special section containing over 120 references on different pills and excipients, pearl-coating, &c., interleaved for MS. notes. 1s. free, 1s. 6d.

Doses of B.P. 1885.—Compactly arranged for vest pocket. Every masterly Post free, 6d.

GOWER, Publisher, 47 Sigdon Road, Dalston Lane, London.

OUR WEEKLY SUPPLEMENT.

We have prepared a set of forms for small advertisements (assistants wanted, businesses for disposal, exchange column, &c.). With these are attached tables of useful reference matter (Sale of Poisons, Postal Information, Annual Licences, Metric Weights, Measures, Medicine Stamps, Law and Public Offices, &c.). We shall be glad to send one of the sets to any subscriber who will send us an addressed post wrapper (bearing a halfpenny stamp). As the object of this publication is to encourage the insertion of such advertisements as we have named in THE CHEMIST AND DRUGGIST, we hope this offer will be taken advantage of chiefly by those subscribers who are willing to use this journal whenever opportunities occur.

OFFICES: 42 CANNON STREET, LONDON, E.C.